610.5

A68
J.1.

Library

of the

Academy of Medicine,

Toronto.

8337

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

http://www.archive.org/details/monthlyabstracto01philuoft

THE MONTHLY

ABSTRACT OF MEDICAL SCIENCE:

A DIGEST

OF THE

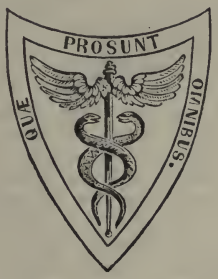
PROGRESS OF MEDICINE AND THE COLLATERAL SCIENCES;

BEING A

SUPPLEMENT TO THE MEDICAL NEWS AND LIBRARY.

VOL. I.

JULY TO DECEMBER, 1874.



PHILADELPHIA:
HENRY C. LEA.
1874.

LIBRARY
AUG 2 4 2001
UNIVERSITY OF TORONTO

PHILADELPHIA:
COLLINS, PRINTER,
705 Jayne Street.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 379. (*For List of Contents see last page.*) July, 1874.

Anatomy and Physiology.

Anatomy of the Serous Membranes.

No part of anatomy has received greater attention, and certainly no other part has been more beautifully elucidated by the application of new and improved means of research, than the serous membranes. Formerly held to have no other function than that of furnishing a smooth and well-lubricated surface, enabling parts that are subject to movement to glide easily over each other, they have been demonstrated by Recklinghausen to represent great lymphatic sacs, and to possess a highly complicated structure and very important relations. Recklinghausen's statements were founded upon observations made on membranes stained with nitrate of silver; and his conclusions have been corroborated by Ludwig and Schweigger-Seidel, Dybkowsky, Dogiel, Böhn, and quite recently by Klein, who has just published a valuble essay upon these membranes as a portion of a complete work upon the Lymphatic System. Dr. Klein's attention had long been directed to this subject, having contributed an essay upon the serous membranes in Stricker's Handbook of Anatomy, which has been translated by the Sydenham Society. The present work is the result of a research by Dr. Klein at the request of Dr. Burdon-Sanderson at the Brown Institution in connection with some pathological inquiries for the Medical Department of the Privy Council.

The chief points of novelty and interest in Dr. Klein's treatise, which is enriched by ten plates containing many beautiful and original drawings, are—first, that the endothelium of the free surface of the omentum, centrum tendineum of the diaphragm, and pleura mediastini does not everywhere present the well-known flat, tesselated character; but that in many places there are groups of polyhedral, club-shaped, and even short columnar cells, with granular contents, ovoid nucleus, and bright nucleolus. This peculiar form of epithelium Dr. Klein terms "germinating epithelium," because numbers of spheroidal cells may be seen in the act of separating or actually detached which in all respects resemble lymph-corpuscles. The lymph-cells thus lying free in the interior of the great serous sacs make their way into the lymphatic system through small openings distributed over the membrane, bounded by peculiar cells, which instantly call to mind the *stomata* of plants, and to which the same name has been given. In the female frog many of the cells present the peculiarity of being ciliated, and they have been observed to perform amœboid movements. In the next place Dr. Klein describes the cellular elements of the *matrix* of the serous membranes. These he represents as forming tracts, patches, or nodules by the accumulation of more or less flattened and branched cells, each lying in a cavity of the matrix but little larger than itself; the cavities communicate by passages, and contain, besides the above-named cells, lymph-corpuscles; the whole corresponding to Recklinghausen's lymph canalicular system. These, being outside the true lymphatic vessels, though in close relation with their walls, he terms perilymphangial nodules and tracts. In some parts a still higher grade of organization is reached, the cells developing within lymphatic vessels, and the matrix becoming a reticulum, and containing numerous lymphoid corpuscles, so as to form a kind of adenoid tissue, as Dr. Sanderson has elsewhere described. Finally, in the highest form or stage of development, the

8337

nodules become vascularized, the matrix consisting of a reticulum of large branched cells, the spaces of which are filled with fluid or a limited number of lymphoid corpuscles. Both the last forms of tissue he terms endolymphangial tracts or nodules.

Thus it is seen that just as in hydrocephalus the structure of the brain is unravelled by the accumulation of fluid, so in the serous membrane we have a lymphatic gland opened out to our view. In one part the free surface is found to be covered with germinating cells, which develop into lymphoid or white blood-corpuscles; in another are structures—the perilymphangial nodules—closely resembling the cortical portion of the ordinary lymphatic glands; and in yet another, the endolymphangial tracts and nodules are vascularized structures identical with the medullary portion of the lymphatic glands. In all, the production of lymphoid corpuscles takes place actively, and the whole may therefore be regarded as ministering to the production and development of blood.

Amongst the points incidentally touched by Dr. Klein are the mode of development and extension of capillary bloodvessels, which he shows to result from the hollowing out of the branched cells of the matrix, the end of the capillary dipping, as it were, into the substance of the cells which is expanded around them. And, again, he gives an interesting description of the mode of development of the fat-cells and tracts which exist in such large amount in the omentum. The second section of the work is occupied with the pathological condition of the parts we have described above.—*Lancet*, Dec. 13, 1873.

—

On the Normal Structure of the Thyroid Body.

P. A. Boechat (*Recherches sur la Structure Normale du Corps Thyroïde*, and *Archives Générales de Médecine*, December, 1873) arrives, in an excellent inaugural thesis, at the following conclusions: The thyroid body may be considered as constituted by a stroma of connective tissue, of which the trabeculæ traverse the organ in every direction. The scaffolding supports a vast cavernous lymphatic network, the sinuses of which communicate largely with each other, and are sometimes clothed with a characteristic endothelium. In the areolæ, left free by this system, are found placed the thyroid cavities, which, according to this author, all communicate with one another. These cavities are constituted by a membrane formed of a single layer of polygonal epithelium, and backed in a great many places directly by the endothelial membrane of the lymphatic canals.

The arterial and venous vessels make a way for themselves, either in the substance of the trabeculæ of the conjunctival tissue, or across the lymphatic cavities themselves. As to the probable function of the thyroid body, M. Boechat thinks it must be concluded from this structure, that it must be related to that which is fulfilled by the organs called lymphoid.—*London Medical Record*, Dec. 31, 1873.

—

On the Relations of the Extensor Tendons to the Knee-Joint.

Dr. F. W. Lorinser writes on this subject in the *Wiener Medizinische Wochenschrift*, October 4, 1873. Two circumstances have led to the consideration of this question. 1. In complete rupture of the tendon of the quadriceps femoris, the patient has still to a small extent power to extend the knee-joint. In cases of complete ankylosis of the patella with the femur, extension of the knee-joint is still possible. The fibres of the capsule of the joint are divisible into three sets: (*a*) Those that are attached to the upper border of the patella; (*b*) Those that are attached to its lateral borders; (*c*) Those which, after passing by the lateral borders of the patella, are inserted into the tuberosity of the tibia. The most exact arrangement of these is as follows: The fascia lata which envelops this region is considerably strengthened, at the outer side of the knee-joints, by the accession of the tendons of the gluteus maximus and tensor fasciæ femoris. These accessory bundles pass

along the outer border of the patella to the tuberosity of the tibia, to which they are attached. Upon removal of this fascia the broad tendons of the rectus femoris, as well as the muscular and tendinous bundles of both vasti, come into view. Whilst the tendon of the rectus is attached to the upper border of the patella, and tendinous bundles pass from both vasti, which, crossing each other obliquely, pass to the opposite sides of that bone, the vasti themselves are attached by strong tendons to the corresponding sides of the patella, and are intimately connected with the ligamentum patellæ, which is inserted into the tuberosity of the tibia. The arrangement, however, is not exactly the same on both sides of the joint. From the lower muscular bundle of the internal vastus, which runs almost transversely toward the patella, pass several strong tendinous bundles which permit the passage between them of the tendon of the sartorius, and arch downwards and inwards to the anterior border of the tibia. These curved bundles are intimately blended with the fascia lata, and are attached close to the tuberosity of the tibia.

The tendon of the musculus femoralis may be divided into a superficial and a deeper layer. It is attached to the upper border of the patella, but assists, in conjunction with other fibres of the capsule, to form the so-called lateral ligaments of the joint.

Taking these points into consideration, we find that—(*a*) The musculus rectus and femoralis act upon the upper border of the patella; (*b*) the principal tendinous bundles of the two vasti are attached to the lateral borders of the patella; (*c*) Close to the patella, on its outer side, pass to the tuberosity of the tibia the tendons of the gluteus maximus and tensor fasciæ femoris, along with the lateral tendinous bundles of the vastus externus, previously blended with the fascia lata; whilst on the inner side passes the tendon of the vastus internus similarly blended with that fascia. From a surgical point of view, therefore, we observe that the tendons of the first series lose their power of extending the joint in ankylosis of the patella with the femur, in complete rupture of the tendon above and below the patella, and in transverse fracture of that bone. The tendons of the second series, inasmuch as they are only inserted into the lateral borders of the patella, are powerless to extend the joint in ankylosis of the patella, and in rupture of the tendon below that bone. They are, however, to a certain extent, efficient in rupture of the tendon above the patella, as well as in transverse fracture of the bone. The tendons of the third series can however, even in ankylosed patella, as well as in fracture or rupture of the tendon either above or below the bone, exert a certain influence in extension of the joint. It is to these chiefly that the orthopædist has to direct his attention after extending contraction of the knee-joint, with simultaneous ankylosis of the patella. Although their action is slight at first, yet through use the patient is at last enabled to extend the joint, notwithstanding the ankylosis of the patella. The combined action of the tensor fasciæ and gluteus maximus, along with that of the fibres of both vasti, which give off tendons to be attached to the tibia, is certainly able to some extent, though not completely, to replace that of the proper extensor of the joint.—*London Medical Record*, Dec. 3, 1873.

—

Double Spleen and Kidneys.

Surgeon-Major G. W. Jameson contributes to the *Indian Medical Gazette*, Jan. 1, 1874, the following extract from the notes of a *post-mortem* examination performed on the body of Bickhoo, resident of city of Ghazepoor, on the 28th of October, 1873.

In addition to one healthy, well-developed spleen, there was a *second* smaller one, connected with the abdominal vessels by separate communications of its own, and situated between the ordinary spleen and the liver. The smaller was of a roundish shape, and had a distinct hilus.

Weight of 1st spleen	. . .	9 oz.	1 dr. 6 gr.
" 2d "	. . .	1 oz.	1 dr. 30 gr.

Besides the above abnormality, there were four kidneys; two of these were

well developed, healthy, and in the usual situation, while the second pair were small, intensely inflamed, and situated lower down than the others.

The four kidneys had each their separate arterial and venous attachments and ureters.

Weight of the two normal kidneys	. . .	5 oz.	4 dr.
" " smaller "	. . .	1 oz.	4 dr. 24 gr.

The bladder was exceedingly small, walls much hypertrophied, and the mucous coat somewhat inflamed.

No calculus in bladder or urethra, and no stricture.

The mucous coats of both large and small intestines were inflamed and ulcerated.

Tissues infiltrated and abdominal cavity filled with dropsical fluid.

Blood unusually fluid, no coagulum in any part of body; all the other organs tolerably healthy in appearance.

—

The Saccharifying Influence of Infants' Saliva.

It has been hitherto generally believed that the secretion of the mouth of sucking infants does not possess the power of converting starch into sugar, as does that of older persons. Schiffer (*Reichert and Du Bois-Reymond's Archiv*, 1873) gives certain observations which show this to be incorrect. He placed little bags of tulle containing starch in the mouths of new-born infants, and of sucklings at various ages. In every case he found that on applying Trömmer's test to the contents the copper was reduced, showing the presence of sugar.—*Edin. Med. and Surg. Journ.*, Dec. 1873.

—

Death of Muscle and Apparent Death.

Dr. M. Rosenthal (*Stricker's Medizinische Jahrbücher*, Part iv. 1872) has examined a considerable number of dead bodies by electro-puncture and otherwise, in order to determine the period of disappearance of the muscular contractility after death. As might be expected, the muscles do not lose their contractility immediately on the cessation of respiration, but retain it, according to the present author, from 1½ to 3 hours. He found that the irritability of the nerves disappears much before that of the muscles, that is to say, direct stimulation of the muscles produces contraction long after irritation of the nerves has ceased to do so. It is remarked that among the muscles, the sphincter palpebrarum retains its contractility longest. The author confirms these views by experiments on animals. He produced muscular rigidity artificially by stopping the circulation in the legs; and found that muscular contractility was gone after about two hours. The contractility was gradually recovered when the circulation was allowed to resume its course. The various means of determining the occurrence of death are discussed by the author, and he comes to the conclusion that in doubtful cases, the surest means is by testing the muscular irritability by means of electric stimulation. He details a very interesting case of hysterical "apparent death," in which preparations were being made for the funeral, and these would probably have been completed, but for the strongly expressed opinion of the author. A young woman, after violent emotional disturbance, fell into an unconscious state, and was supposed to be dead; this opinion being concurred in by the medical attendant. The author saw her 30 hours after she had fallen into this state, and found the body cold, motionless, pulseless; when the arms were raised they fell heavily like those of a dead body. A very faint and doubtful sound was heard in the cardiac region, but no movement of the chest or respiratory murmur could be detected. A slight movement of the abdomen however was observed. The author found that the muscles reacted to Faradization, and as this was now 30 hours after the supposed occurrence of death, he gave it strongly as his opinion that death was only apparent. He recommended the application of friction, heat, etc., and the administration of coffee. He learned afterwards that the patient spontaneously awoke from her state of lethargy in about 44 hours. She stated after-

wards that she had no recollection of the onset of the attack, but that, later on, she was conscious, and heard and understood what was going on. but was unable to speak or move. The condition here is compared with that of nightmare, in which in spite of some supposed impending calamity, no power of speech or motion is felt to be possessed. The author claims that in this case the use of Faradization was the means of preventing premature burial.—*Glasgow Med. Journ.*, Jan. 1874.

—

On Urea in Vomit.

Dr. JUVENTIN (thesis quoted in *Gazette Médicale de Paris*, April 25) informs us of the interesting fact that all vomited matter contains a certain proportion of urea. In fact, according to M. Juventin, "the excretion of urea by the mucous membrane of the stomach is normal, and goes on in an amount proportionate to that contained in the aqueous portion of the blood." The blood in the normal state contains 0.16 centigrammes of urea to the litre, according to Picard's analyses.

The quantities of urea contained in the vomited matters have been determined by the process of M. Bouchard.—*London Med. Record*, May 13, 1874.

Materia Medica and Therapeutics.

The Therapeutical Action of Bromide of Potassium.

The *Practitioner* for January of the present year contains two articles of great interest in connection with the above subject—one by Prof. BINZ, of Bonn, and the other by Dr. ANSTIE; the former viewing it rather from the theoretical, and the latter from the practical side of the question. Professor Binz endeavors to show that not only has the value of bromide of potassium as a drug in disease of the nervous system, such as epilepsy and its allies, been over-estimated, but that it is questionable whether its action is not entirely due to the *potassium* it contains, and not to the bromine. If we remember rightly, this view was also propounded by Professor Leidesdorf, of Vienna, in 1871, in the *Wiener Allgemeine Med. Zeitung*. Assuming his theory as correct, Dr. Binz explains the action of bromide of potassium by a general improvement of nutrition, caused by the addition to the blood of potash salts in excess, these being such important constituents of the red blood-corpuscles and of the general muscular system. The tonic action of the potash on these would thus remedy indirectly the effects of a chlorotic condition of the blood—namely, an enfeebled activity of the heart and bloodvessels; and in large doses potash might "directly influence the human heart in various senses, so as to rectify abnormalities in the distribution of blood which would be reflected from the brain in the shape of insomnia and restlessness." Dr. Binz sums up his paper by suggesting further investigation of the action of bromide of sodium and chloride of potassium; and, though he admits that the bromide of potassium has some value, yet he believes that it will be less and less used as time goes on, and that the results ascribed to it may be accounted for (1) by the (natural) decline of the morbid processes for which the drug is given; (2) by the psychical impressions on the patient, who is encouraged by the idea that he is taking something to benefit him; and (3) by the improvement of nutrition set up by the potash salts, and by other factors which mislead observation. To these sceptical views Dr. Anstie makes what we consider a triumphant reply. He first points to the unanimously favourable experience of English physicians who have made much use of the bromide of potassium, alluding especially

to that of Dr. Russell Reynolds, Dr. Radcliffe, Dr. Hughlings Jackson, Dr. Ringer, Dr. Clouston, and himself. He might have added, among Germans, the strongly expressed opinion of the late illustrious Niemeyer in the chapter on epilepsy in the eighth edition of his work on medicine. All these authorities assign to the bromide a controlling action over epilepsy, and some extend their belief in its efficacy to other forms of convulsions, as well as in insomnia and restlessness. With regard to insomnia, Dr. Anstie, while admitting the weight of English testimony in favour of the bromide, has himself found chloral more serviceable in this disease, and has in *aged persons* even seen the former aggravate symptoms which it was intended to relieve. In neuralgia the bromide is extremely valuable in certain cases, "especially those arising from sexual worry." Speaking of the question as to which element in the bromide of potassium is the active one, Dr. Anstie states that, as far as epilepsy is concerned, he has experimentally proved the uselessnesss of bicarbonate of potassium and nitrate of potassium given for some time in full doses, but he agrees with Professor Binz that the action of chloride of potassium requires to be more thoroughly examined. Both the articles here briefly discussed will well bear perusal in their entirety, and we therefore shall refer our readers to the original for further details.—*Med. Times and Gaz.*, Feb. 14, 1874.

—

Action of Bromide of Potassium on the Skin.

Dr. Neumann, of Vienna, has recently had an opportunity of examining a portion of skin taken from a child that had an eruption upon its body, which appeared to have been produced by taking large doses of the bromide of potassium. Three hundred and sixty-one grains had been given to arrest convulsions, and after two hundred and fifty had been taken the peculiar rash appeared.

The result of microscopic examination showed that a series of anatomical changes had taken place in the skin, and especially in the glandular structures. The hair-follicles were chiefly affected, the hair-sacs and sweat-glands in a less degree. In the early stages there was an increase in the number of the cells lining the glands, and the interior was occupied by new cells, smegma, and pus. In more advanced stages the cells of the interior were mostly shrivelled, and the glands were dilated, while a layer of young and succulent cells covered the walls.

There was also an increase of cells in the cutis, enlargement of the papillæ, with an uneven surface of the epidermis; but these appearances appeared to be secondary to the above mentioned. The author concludes that the bromide of potassium is excreted through the glands, which are thereby thrown into a state of inflammation, which is accompanied by a development of new cell elements.—*Med. Record*, March 2, 1874, from *Wien. Med. Woch.*, 49, 1873.

—

Bromide of Calcium.

Guttmann (*Berliner Klinische Wochenschrift*, Dec. 2) and Eulenburg find that bromide of calcium is three or four times weaker than bromide of potassium, instead of being more powerful, as Hammond affirms. A quarter of a gramme (nearly 4 grains) is required to kill a frog, and 8 grammes to kill a rabbit. The symptoms also are longer in appearing than after bromide of potassium. Two to four grammes of bromide of potassium injected subcutaneously kill a rabbit in thirty minutes, while 8 grammes of the calcium-salt only do so after many hours. Animals poisoned with bromide of calcium die with the symptoms of gradual collapse. Rabbits killed with bromide of potassium die with the symptoms of cardiac paralysis, viz., dyspnœa, convulsions, exophthalmos, and appearances of suffocation. The action of the potassium-salt on the heart of warm-blooded animals is so much greater than its action on the nerve-centres, that the latter is hardly observed. The calcium-salt acts only on the nerves, having on them a sedative effect, though less strongly than the potassium-salt, and does not affect the heart at all. Iodide of calcium and

chloride of calcium act like the bromide. The authors consider that the bromine has nothing to do with the action of the bromides either of potassium or calcium, their action depending simply on the bases. Bromide of calcium must be given therapeutically in much larger doses than bromide of potassium. —*London Medical Record*, Dec. 31, 1873.

—

On the Action of Iodide and Bromide of Mercury.

In a paper read before the Medico-Physical Society of Florence, Prof. Bellini thus sums up the results of experiments on the action of the iodides and bromides of mercury (*L'Imparziale*, March 2).

1. The iodides and bromides of mercury are more or less converted into double salts in the intestinal canal.

2. The reagents which produce this change are, in the stomach, the alkaline chlorides, lactic and hydrochloric acids. and protein aliments, vegetable as well as animal; in the small intestine, the chlorides, and the alkaline carbonates in the enteric juices.

3. The above-mentioned reagents, especially the alkaline chlorides, do not all act with the same energy as the iodides and bromides of mercury; a smaller quantity of double salts of mercury is produced with the protiodide than with the protobromide, and less with the latter than with the iodide or bibromide of mercury.

4. In the large intestine, the iodides and bromides of mercury, and the double salts arising from their decomposition, remain free and unchanged in suckling infants; while in children who are not suckling, and in adults, they are transformed into sulphides by the hydrosulphuric acid gas which is normally contained in this part of the bowels.

5. The iodides and bromides of mercury, applied to healthy or diseased external parts, or injected into the subcutaneous areolar tissue, are partly changed into double salts, principally by the chlorides with which they meet.

6. It is as double salts that the mercurial iodides and bromides act both locally and on the general system.

7. Thus the iodides and bromides of mercury are subject in the animal organism to the same changes as calomel, varying only in degree.

8. Sulphur, and the alkaline hyposulphites, when taken during digestion along with the mercurial iodides and bromides, paralyze the action of the latter: this is the result of the hydrosulphuric acid gas which is given off in the whole alimentary tract.

9. This action is also paralyzed in cases where there is an abnormal development of hydrosulphuric acid gas in the intestinal canal.

10. Milk. richly seasoned diet, the alkaline iodides, bromides, and sulphites, ammonia and its salts, and cherry-laurel water, but not the alkaline hydrosulphites, provided that they are taken during fasting, increase the local and general effects of the iodides and bromides of mercury.

11. These effects are increased, when the mercurial iodides or bromides are administered to persons in whose alimentary canal there is an abnormally large amount of ammonia.

12. Magnesia, in the form of hydrate or of carbonate, given at the same time with the mercurial iodides or bromides, does not destroy their effects, but rather increases them.

13. Acid drinks, food, and fruit, very probably increase the effects of the mercurial iodides and bromides, especially when they are taken some hours after the administration of these remedies.

14. The local and general effects of the iodides and bromides of mercury are greater when they are applied to healthy or diseased external parts, or injected into the subcutaneous areolar tissue, in individuals to whom the alkaline iodides, bromides, sulphites, or hyposulphites, are at the same time given internally.

15. The local and general therapeutic effects of these mercurials may, however, be absent when they are applied to ulcers or wounds in individuals who make use of hyposulphites; because the latter, in passing by osmosis from the

blood with which they circulate into the morbid secretions, may be decomposed by the acids which are formed there, and then hydrosulphuric acid may be formed at the expense of the sulphur which is precipitated, and may reduce the mercury to the state of sulphide

16. Sulphur baths should not be given when inunction with ointment of mercurial iodides or bromides is used, inasmuch as it paralyzes their action, and produces more or less severe local irritation.

17. Clinical observations and experiments on animals are in complete accord with the results of chemical experiments.

In the discussion which followed the reading of Dr. Bellini's paper, Professor Schiff observed that, while it was impossible to deny the intrinsic value of Dr. Bellini's experiments, the results would be more conclusive if the experiments were made not only on rabbits, as Dr. Bellini had done, but also on dogs; inasmuch as rabbits and dogs, as far as regards digestion, represent two extremes, between which stands man.—*London Medical Record*, March 18, 1874.

—

Camphorated Phenol.

In a note on this subject (*Campania Medica*, and *Gazetta Medica Italiana-Lombardia*, November 8), after noticing the chemical and therapeutic properties of carbolic acid, Bufalini goes on to speak of its behaviour when combined with camphor.

In making experiments with carbolic acid for the purpose of preserving animal substances from putrefaction, Bufalini met with a peculiar phenomenon when it was in contact with camphor. When about equal parts of carbolic acid and camphor are dissolved in alcohol, in about twelve or thirteen hours there arises to the surface of the solution a yellowish stratum of oily appearance; it does not mix with the liquid or water, nor is the camphor contained in the alcohol precipitated by water. All this indicates that a chemical combination has taken place, forming a substance which Bufalini calls camphorated phenol.

In preparing this compound, Bufalini prefers the two following methods. In the first, one part of carbolic acid and two of camphor broken into small pieces are mixed in a vessel and allowed to stand for some hours, when a reddish yellow oily liquid will be formed; this is camphorated phenol, which is purified by washing with cold water. The second method consists in dissolving three parts of carbolic acid in ten of alcohol, and five of camphor in twelve of alcohol, mixing the solution in a wide-mouthed vessel, and allowing the mixture to stand for a day or two; the camphorated phenol rises to the top, and may be removed by simple decantation.

Prepared in either of these ways, camphorated phenol is a liquid of oily appearance, reddish yellow or wine-red in colour, having a smell of camphor, insoluble in water, but soluble in alcohol and ether.

Regarding its therapeutic uses, the author gives the following as his conclusions.

1. Camphorated phenol produces the same effects as carbolic acid, but is less dangerous. It may be used both externally and internally—*e. g.* in enteric fever and other infectious disorders.

2. It has the power of modifying unhealthy wounds, and of destroying the parasites which are present in certain diseases, as septicæmia, typhoid forms of fever, etc.

3. The medical use of camphorated phenol is to be preferred to that of carbolic acid, as the former does not present the disadvantages of the latter.

4. Camphorated phenol, when applied to wounds, does not irritate them, or act as a caustic, or disorganizing substance on them; and may be used in large doses, without producing symptoms of poisoning.—*London Med. Record*, Feb. 4, 1874.

—

On Iodoform as a Topical Remedy.

Dr. Courteaux (*Annales de Dermatologie et de Syphiligraphie*, vol. v. 1873-4) gives a summary notice of two recent works by Petiteau and Isard on the

use of iodoform. Petiteau's conclusions, which, Dr. Courteaux says, agree with his own and those of several surgeons at the Midi Hospital of Paris, are as follows :—

1. Iodoform is locally anæsthetic.
2. When dusted on ulcerating surfaces, it causes them to cicatrize rapidly.
3. It is most useful in small atonic wounds, or such as tend to creep or enlarge; soft chancres, suppurating buboes; syphilitic, varicose, scrofulous, and cancerous ulcers.
4. It is the surest remedy to procure a prompt cicatrization of syphilitic ulcers of all kinds.
5. It may be applied as an ointment, or as a solution in glycerine and alcohol, and in these forms is preferable to the powder when there is abundant suppuration.
6 It should be always accompanied in syphilitic affections by internal treatment.

Petiteau attributes its good effects to the simplicity of the dressing, to its antiseptic power, and to the absorbent property it possesses as a powder, and to its giving off iodine freely.

Isard, while agreeing with many of the conclusions of Petiteau, maintains that phagedæna is not controlled by iodoform.

The results of some comparative experiments made by Mr. Berkeley Hill on soft venereal sores and on creeping tertiary syphilitic sores with iodoform and other applications, corroborate Isard's conclusion concerning the feeble power of iodoform to arrest certain obstinately spreading sores. The early venereal sores were in seventeen out of twenty cases not at all controlled by iodoform; and, though more efficacious with tertiary ulcers, it was not uniformly effectual. —*London Med. Record*, Dec. 24, 1873.

—

External Application of Chloral.

M. Martineau (*L'Union Pharmaceutique*, January, 1874) has derived great advantage from the topical employment of solutions of chloral. In the bedsores of typhoid fever he uses an aqueous solution of the strength of one per cent., first washing the sore well, and then covering it with lint soaked in this liquid. He says its effect is remarkable: the sloughing, atonic region taking on a healthy aspect, granulating, discharging less, and proceeding rapidly to a cure. When there is offensive suppuration he uses a mixture of chloral and eucalyptus.—*Philada. Medical Times*, March 28, 1874.

—

Subcutaneous Injection of Carbolic Acid.

Dr. Hüter of Greifswald has published, in the *Centralblatt für die Medicinischen Wissenschaften* for Jan. 24, an article in which he advocates the subcutaneous injection of carbolic acid as a remedy in certain local affections. He says that, although its antiphlogistic action in wounds is well known, and it has been used as an antipyretic in intermittent fever, its use as a local antiphlogistic in the form of subcutaneous injection appears not to be known. No doubt there has been a certain amount of fear, not without cause, of producing general symptoms of carbolic acid poisoning. Having this in view, Dr. Hüter did not make any experiments with the subcutaneous injection of carbolic acid in the human subject, until he had ascertained by experiments on frogs that its general action is limited to the production of changes in the red corpuscles. These experiments have been described by him in his *Allgemeine Chirurgie*, and also in the *Deutsche Zeitschrift für Chirurgie*. When carbolic acid is injected subcutaneously or into parenchyma, most, if not all, is absorbed by the lymphatics; and only small portions gradually enter the circulation, so that poisoning of the blood does not take place. On the present occasion, Dr. Hüter confines his remarks to the practical value of the subcutaneous injection of carbolic acid as an antiphlogistic remedy in local inflammatory conditions.

He uses a solution of 2 parts of carbolic acid in 100 of water. This is injected

by means of a Pravaz's syringe, which holds about 0.9 gramme of the solution, or rather less than 0.02 gramme (three-tenths of a grain) of carbolic acid. The injection of two syringefuls of the solution at the same time has not been found to produce any symptoms of poisoning, nor has any darkening of the colour of the urine been observed. Dr. Hüter has not exceeded the quantity of two syringefuls at one injection; and he repeats the operation, when necessary, only after an interval of one or two days. No pain or swelling follows; the point where the needle is inserted only becomes a little tender. The injection is attended with so little pain, that it does not produce any even in small sensitive children.

The antiphlogistic action of the parenchymatous injection of carbolic acid was well marked in nearly all cases; and Dr. Hüter specially mentions some of the diseased conditions in which its effects have been distinctly observed.

In hyperplastic granular synovitis (white swelling) of the knee, the injections are made at the most central part of the joint, so that the needle touches its surfaces. The result is abatement of the pain, falling of the evening temperature, which had been persistently high, and distinct reduction of the swelling. The injections must be repeated at intervals of two or three days, according to the chronicity of the disease.

In subacute glandular swellings having a tendency to suppuration, and in inguinal and femoral buboes, the injection leads to abatement of the pain, redness, and œdema; while the glands become reduced in bulk. It is sometimes necessary to repeat the injections several times before the cure is complete.

In acute phlegmon of the subcutaneous and subfascial connective tissue, the injection is made at the periphery, as it may be calculated that the lymphatics will carry the remedy towards the centre; when the phlegmon is extensive, two injections are made at different points. The result is to produce contraction of the tissue in a few hours, with cessation of the pain. Recovery takes place without suppuration, even if this, though imminent, have not already appeared.

In traumatic erysipelas, Dr. Hüter makes an injection at different points along the edge, so as, for instance, to prevent the erysipelas from spreading from the forehead to the hairy scalp. He has, however, not yet ventured to treat the entire circumference of the erysipelas with numerous injections, so as to cut it short. Dr. Wilde of Plau has also recorded some successful cases of treatment of subcutaneous erysipelas by the injection of sulphocarbolate of soda.

Dr. Hüter attaches great importance to making the injections into the parenchyma, so that the carbolic acid may be carried into the cavities of the largest joints, into the connective tissue surrounding the vessel, and into the interior of the lymphatic glands, and there exert its antiphlogistic influence. He regards the parenchymatous injection of carbolic acid as the most powerful antiphlogistic means which we possess; neither the application of ice, nor withdrawal of blood, nor any other means short of operation, can be compared with it in this respect. He hopes that the parenchymatous injection of carbolic acid will be adopted not only in surgical practice, but in the treatment of diseases of internal organs. There can be, he says, no essential impediments to the injection of carbolic acid into the parenchyma of the lungs, spleen, liver, and kidneys; but its effects must be first tried on animals. In this case, direct injection into the veins must be avoided, lest symptoms of poisoning be induced. The needle of the syringe having been introduced, the operator should observe whether any blood escape. If it do so, the needle must be withdrawn a little, or pushed deeper; and the injection should not be made until blood ceases to escape.

The remedy appears to Dr. Hüter to be applicable in the treatment of non-malignant tumours, such as fibroma; but he has not met with a case in which it has been perfectly successful, and abstains from speaking too enthusiastically on this point. Injections may also be made in the neighbourhood of malignant tumours, especially if they act as anæsthetics, and not as irritants. He concludes with a warning against making carbolic acid injections into very vascular tissues and tumours, as poisoning may very easily be produced.—*British Med. Journal*, Feb. 14, 1874.

On the Effect of Food on the Composition of the Bones.

H. Weiske and E. Wildt (*Zeitschrift für Biologie*, 1873, Band ix., Heft iv., p. 541), in a series of investigations carried on upon goats last year, showed that, although the withdrawal of lime or of phosphoric acid from the food of adult animals led to fatal consequences, yet that it had little or no influence on the composition of the bones, and, in particular, did not make them more friable. The present series of researches were made with a view of determining whether any such influence was exerted on the bones of young animals. The animals selected on this occasion were Southdown lambs about ten weeks old. One of these was fed upon food poor in phosphoric acid, a second on food poor in lime, and a third on normal diet. After the lapse of fifty-five days various bones were analyzed, and the general result was, that just as in adults so in young animals: no remarkable change was produced in the composition of the several bones by the difference in the diet, or, in other words. that the composition of the bones is independent of the nature of the food. The bones were, however, stunted in their growth.—*Lancet*, April 18, 1874.

—

On the Influence of Alcohol on the Temperature of the Human Body.

We are indebted to the *Berliner Klinische Wochenschrift* for the following abstract of the orignal paper by Riegel in the *Deutsches Archiv für Klinische Medicin*, vol. xii. parts 1 and 2.

The ordinary sources of fallacy in experiments on the action of alcohol were, as far as possible, guarded against by Riegel, as follows. 1. Not content with prefixing one typical or theoretical curve of normal temperatures to the whole set of experiments, he constructed and prefixed to each experiment a normal temperature curve of the subject of such experiment, drawn from actual observation of each individual. 2. The measurements of temperature were simultaneously made in the axilla and in the rectum; it could not, therefore, be objected that the slight depressions were due to the thermometer shifting in the axilla, etc.

On the whole, his experiments confirm those of Binz and Bouvier (we may also add, of Dr. Parkes, Dogiel, Sydney Ringer, and Dr. W. Bathhurst Woodman). The general results of the experiments are the following:—

1. Alcohol depresses the temperature, not only in febrile diseases, such as typhus, erysipelas, and pneumonia, but in a febrile condition also; this depression generally amounts to only a few tenths of a degree (Centigrade), and lasts for a short time only. Very rarely there is an equally great rise of temperature.

2. In those recovering from severe illness, the downfall is somewhat less, or, more often, altogether absent. This is also the case in those habituated to alcohol.

3. The larger the dose, the greater the downfall of temperature.

4. Riegel concludes that, although alcohol scarcely deserves the reputation given to it in England, as a decided depressor of temperature, yet, on the other hand, it never essentially raises the temperature—the constant dread of continental practitioners—and it is decidedly one of those things which diminish bodily waste, like tea and coffee.—*London Med. Record*, May 13, 1874.

—

The Direct Transfusion of Lamb's Blood.

Dr. Oscar Hasse communicates the particulars of twelve cases (*Allgemeine Wiener Medizinische Zeitung* for December), in which he performed this operation. Five were cases of phthisis, two of obstinate chlorosis, two of cachexia after severe dysentery and puerperal fever, one of diseased bone with profuse suppuration, one of carcinoma of the stomach, and one of acute anæmia following profuse loss of blood in a premature confinement with placenta prævia. In the last case, the recovery was very quick; in the case of carcinoma of the stomach, the nutritious aspect of the patient greatly improved; in the case of diseased bone, the patient's appetite and general condition were greatly im-

proved, and the flow of pus better, so far as, that instead of the thin and unhealthy, thicker pus was secreted, its quantity was greater, and the exfoliation of the necrosed bone accelerated. The other cases were greatly benefited. The most surprising result, however, was in the cases of the phthisical patients. These appear to have been in very advanced stages of the disease. Two glass canulæ are employed in the operation, one of which is inserted into the carotid artery of the lamb, and the other into the median basilic vein of the patient; they are united by an India-rubber tube. The reaction in each case, after the transfusion from the lamb, was more marked than in those cases where the transfusion has been effected by defibrinated human blood; particularly the occurrence of violent dyspnœa, ultimately passing into apnœa, which, after sixty or ninety seconds, required cessation of the transfusion. About half an hour afterwards a violent shivering came on, at first with slight loss of temperature, but ending in a rise in temperature to about 40.9 Cent. (= 105.6 Fahr.). This was succeeded by lassitude, and profound sleep, from which the patient woke with renewed strength and a feeling of comfort. A good appetite followed, with good power of digestion and more sleep. The patient soon increased a pound in weight, and gained muscular power and good spirits. During the process and soon after the transfusion, there was pain in the region of the lower spinal nerves, with urticaria; and in one case, after a considerable quantity had been transfused, albumen and blood appeared in urine.—*London Med. Record*, Dec. 31, 1873.

—

On Solutions of Morphia for Hypodermic Injection.

Mr. C. T. Vachell suggests (*Lancet*, Nov. 29, p. 797) the desirability of fixing a standard strength for the solutions of morphia used for subcutaneous injection. To obtain a clear solution, without excess of acid, is not very speedily effected; and he thinks it would be a convenience to the practitioner to be able to purchase a carefully prepared solution of standard strength. Mr. Vachell proposes the following formula:—

Acetate of morphia	1 drachm.
Distilled water	12 drachms.
Acetic acid	As much as is sufficient.

He states that one-twelfth of a grain of acetate of morphia would be contained in a minim of such a solution; the dose would, therefore, be from two to four minims. Some such formula, he thinks, might be inserted in the next edition of the *British Pharmacopœia*.

Dr. White has since pointed out (*Lancet*, Dec. 20) that no allowance is made in the foregoing for the increase of bulk by the addition of the solid, and that a minim would contain not one-twelfth, but one-thirteenth. He says that he makes his solution as follows:—

Acetate of morphia	1 scruple.
Distilled water	140 minims.
Acetic acid, B. P.	5 minims.

Dissolve with gentle heat in a test tube. The solution measures exactly 160 minims, consequently 8 minims would contain one grain of acetate of morphia. As a standard solution he suggests one-half the strength of the above. The hydrochlorate is used by Mr. White (*Lancet*, Jan. 3) in the proportion of two grains to one drachm of hot water. This he has found to form a solution that does not deposit on cooling, and which he thinks preferable to solutions made up with free acids. In the discussion that has taken place the *British Pharmacopœia* solution of the acetate has also been recommended and objected to because of its bulkiness, and suggestions have been made for the use of a standard syringe as well as a standard solution.

Messrs. T. and H. Smith (*Pharm. Journ.*, vol. iv. p. 436) state that, by using meconic acid instead of acetic acid, a neutral and stable solution of one in twelve, or much stronger, may be prepared. They consider that a neutral solution of meconate of morphia is pre-eminently adapted for hypodermic treatment.—*London Med. Record*, April 8, 1874.

Medicine.

On a Rare Kind of Leucæmia in Childhood.

Dr. F. Gallasch (*Jahrbuch für Kinderheilkunde*, Dec. 15, 1873) reports a case occurring in a child four and a half years old. The parents were healthy; there was no taint of syphilis. The child had been subject to bronchial catarrh with occasional swellings of the glands of the neck. There had been no bleeding at the nose. It never had the usual children's complaints. Before its admission into the hospital it had suffered from an asthmatical cough for the last six weeks. There had been no fever nor sickness. The child had lost flesh very sensibly during the last fourteen days, becoming pale and bloodless. After a stay of three months and a half in the hospital it died comatose. In the *post-mortem* examination, all the lymphatic glands were found much enlarged, also the liver, spleen, Peyer's patches, and solitary glands. The kidneys were pale, of normal size. The testicles and lachrymal glands were enlarged, especially the latter. Microscopical examination of the testicles and lachrymal glands showed excessive lymphoid infiltration into the surrounding areolar tissue, compressing and diminishing the gland substance. The same lymphoid infiltration was found in the other glands, showing that the progress of the disease was the same in all the structures.—*London Med. Record*, March 4, 1874.

—

Rabies Mephitica.

Rev. Horace C. Hovey contributes to the *American Journal of Science and Arts* for May, 1874, the following account of rabies mephitica, a disease produced by the bite of the common skunk, which in some respects resembles hydrophobia; the likeness, however, is only generic, while specifically there are marked differences. After citing a number of cases of the disease, Mr. Hovey gives the following differential diagnosis.

1. The period of incubation is alike in *Rabies canina* and *Rabies mephitica*. That is, it is indefinite, ranging from ten days to twelve months, with no opportunity meanwhile for subsequent inoculation. But during the incubative period of *R. mephitica*, no perceptible changes take place in the constitution as in hydrophobia. In only one instance was there unusual nervousness, and that might have been due to alcohol. In every case, where there was time for it, the wounds healed over smoothly and permanently, and in several instances not even a scar was visible. In no case was there recrudescence of the wound, always seen in hydrophobia. Indeed there were so few premonitions of any kind that, in most instances, the attending physicians themselves supposed the ailment to be simple and trivial, until the sudden and fearful convulsions came on to baffle all their skill.

2. Characteristic pustules form, in hydrophobia, beneath the tongue and near the orifices of the submaxillary glands. (See Aitken, *Sci. and Pract. Med.*, vol. i. p. 653.) These were not reported in a single case of *R. mephitica*. Dr. Shearer looked for them carefully in all his cases, but did not find them.

3. The specific action of hydrophobic virus affects the *eighth pair of cranial nerves* and their branches, especially the œsophageal branch, the result being great difficulty in swallowing; and the motor nerve of the larynx, causing sighing, catching of the breath, and difficulty in expelling the frothy mucus accumulated in the throat. These invariable accompaniments of *R. canina* are usually wanting in *R. mephitica;* the exceptions being in the case of the Swedish girl, who complained of pain in her chest; and the young man, Dr. Janeway's patient, whose constriction of the throat was decided, as well as his sensitiveness to water. Dr. Shearer's patients had no such trouble. A taxidermist, who has seen four dogs die from *R. mephitica*, in Michigan, says they did not seem to have any fear of water, or other signs which he had supposed were characteristic of *R. canina*. Ordinary hydrophobia, again, is marked by constant hyperæsthesia of the skin, so that the slightest breath of air will pre-

cipitate convulsions. But, in *R. mephitica*, fanning the face affords relief, and even cloths dipped in water and laid on the forehead were soothing!

4. In hydrophobia the perceptions are intensified, so that even the deaf are said to have their hearing restored; the pupils are strongly dilated, imparting to the eyes a wild, glaring expression; the spasms are tonic, *i. e.*, steady and continuous; the pulse is feeble; and delirium is occasionally relieved by lucid intervals. But the symptoms are wholly different in *R. mephitica:* there is oscillation of the pupil; the spasms are clonic, *i. e.*, marked by rapid alternate contraction and relaxation of the muscles; small but wiry radial pulse and rapid carotids; positive loss of perception and volition throughout, until delirium ends in persistent unconsciousness, simultaneously with cold perspiration and relaxation of the sphincters.

5. The mode of death is by asthenia in both forms of rabies; but in *R. canina* the frightful struggles of nature to eliminate the poison are more prolonged than in *R. mephitica;* and in the latter they may, on occasion, be still further abridged by the use of morphia, which has no narcotic effect upon the former, even in the largest doses and injected into the veins!

—

Infection of Smallpox.

Dr. Zuelzer, of Berlin, has just published the results of some experiments which he has made on monkeys (*Cercopithecus*) with variolous matter. About a drachm of blood from a severe case of smallpox, and about the same quantity of pus from the mature pustules of another case, were made into small balls with bread-crumb and given to two monkeys. Both remained well. Ten days later, the hair was cut, without injuring the skin, from a part of the back of one of these monkeys. A piece of charpie charged with variolous pus was laid on the spot, covered with a watch-glass, and secured by strips of adhesive plaster, till the end of three hours, when it was removed and the place washed. No infection followed. Twelve days later, some blood from a severe case of variola was inoculated into several parts of the back and the inner surface of one of the thighs of the same animal. The blood used contained a very large number of globular bacteria. On the sixth day after the inoculation, the temperature began to rise, the normal in the rectum being in the morning about 100.4 Fahr., and in the evening 102.5; and on the eleventh day it was 105.5 to 106.4. The animal lost its appetite, but this returned on the ninth day. Red spots appeared in great abundance on the rump, and single ones on the back, on the inner surface of the thigh, and on the mucous membrane of the fauces; they soon developed into papules, some of which became flat pustules which soon burst. To test the possibility of conveying infection through the breath, a quantity of desquamated epidermis from smallpox patients, and small pieces of linen impregnated with their blood and pus, were used. These were placed in several small gauze bags in a wooden cage, which was often shaken. A small wire basket filled with the same materials was also given to an animal to play with. It sickened on the fifteenth day, presenting the same symptoms as in the former case. Dr. Zuelzer arrives at the following conclusions: 1. The blood of variolous patients is infectious. 2. Infection does not take place through the digestive apparatus, nor, probably, through the sound skin. 3. Infection takes place through inoculation, and also through the respired air, when this is sufficiently charged with the poison.—*Brit. Med. Journ.*, Feb. 7, 1874.

—

Embolism as a Cause of Aneurism.

During two years Ponfick (*Virchow's Archiv*, November, 1873), has made a careful examination of the arteries of the body in all cases dying in the Charité at Berlin with endocarditis, and their number has not been inconsiderable. He has found aneurism of smaller vessels in about one in ten or twelve cases, the aneurisms being chiefly of the brain and mesentery. In most of the cases there was calcareous degeneration of the vegetations of the inflamed valves. Bits of calcareous material were broken off, and, sticking in arteries, partially ob-

structed them. By the repeated impulse of the blood, the calcareous plug is gradually forced through the wall of the vessel, and so by perforation a false aneurism is formed, whose sac is made up of the surrounding tissues. But he found that even a soft clot sticking in an artery may come to perforate its wall, and lead to an aneurism. In such cases the embolus has its seat behind a division of the artery, and the blood between the obstruction and the branch being, under these circumstances, exposed to greater pressure than usual, the embolus is pushed through the wall of the vessel. It is to be noted that this formation of aneurisms, as the result of embolus, only occurs in vessels which are surrounded by a soft parenchyma, the vessels of the brain and mesentery above all, and no doubt the inconsiderable support furnished to the wall of the vessel by these tissues is an important determining condition. No aneurisms were found in these cases in the arteries of the kidney, for instance, where the tissue is firm. From the structure of these aneurisms, it is easy to understand how they so frequently rupture. They arise by perforation of the coats of the vessel, and their wall is only formed from the surrounding tissue, which has no great consistence. Towards the conclusion of his paper, the author has some remarks on aneurism of the heart, or ulcer of the heart, and he points out that it arises where vegetations on the valves are large enough to touch the internal wall of the heart, and where at each closure of the valve they impinge against a certain point of such wall, and so come to erode it, and allow of the blood burrowing into the wall.—*Glasgow Med. Journ.*, April, 1874.

—

The Pathology of General Paralysis.

Prof. Ludwig Meyer, of Göttingen, contributes to *Virchow's Archiv.* Aug. 1873, a paper on this subject. With most observers the author looks on general paralysis as a general chronic inflammation of the brain and its membranes, and in other communications he has sought to confirm this view by records of temperature, etc. In the present paper he goes on the basis of pathological anatomy, and tries to show that there are the anatomical characters of an inflammation. He has examined twenty cases in which the disease was comparatively acute, and in which death took place at a comparatively early period, so that an opportunity was afforded of examining the brain at the outset of the pathological process, and before the occurrence of degenerations which might be secondary. A brief history of these twenty cases is given, and the usual symptoms were at first headache, then maniacal outbreaks like those of fever, delirium, and sometimes death occurred before the development of general paralysis. The brain was examined microscopically after the fresh tissue had been macerated from 12 to 24 hours in a weak bichromate of potash or chromic acid solution. The author believes the inflammation to be rather what might be called interstitial, that is to say, it does not affect the nervous elements directly, but rather the vessels and their neighbourhood. He found the vessels, especially the smaller arteries and veins (transition vessels), surrounded by collections of cells. This existed first in the cortical substance of the cerebrum, but in later stages penetrated to the medullary. The inflammatory new formation was not homogeneously disturbed, but seemed to affect numerous minute centres. In accordance with these minute characters the brain, to the naked eye, presented swelling and vascularization of the cortex. This then seemed to be the primary lesion, but it was followed by various other changes chiefly in the direction of degenerations. The vessels especially were commonly the seat of degeneration, fatty, calcareous, or sclerotic. There were also in some cases partial dilatations of the vessels, sometimes amounting to fusiform aneurism. In respect to the proper nervous tissue, he found it in early cases unaltered, but later on there was commonly atrophy, and a granular condition of the ganglion cells. There is not, as Meschede asserts, a primary or fatty-pigmentary degeneration of the ganglion cells.—*Glasgow Med. Journ.*, Jan. 1874.

Temporary Paralysis in Children and Adults.

Dr. Anton Frey has published in the *Berliner Klinische Wochenschrift* for January 3, 10, and 17, a paper, founded on observations in Dr. Kussmaul's clinic at Freiburg, on temporary paralytic affections in adults, resembling the temporary spinal paralysis of children, proceeding apparently from myelitis of the anterior cornua.

After giving reasons for preferring the title of "infantile paralysis" (Heine) to that of "essential paralysis" (Rilliet and Barthez), the author describes the distinguishing features of the complaint. He maintains that the fundamental lesion is a very acute myelitic process attacking a more or less extensive region of the anterior cornua and the adjacent anterior and lateral columns [but he does not seem to be aware of the recent researches of Westphal and Bernhardt on the implication of the large ganglion-cells.—*Rep.*]. He then describes some cases of spinal infantile palsy which recovered entirely without leaving any bad effect, and which he calls "temporary spinal infantile paralysis." The name was first employed by Kennedy (*Dublin Journal of Medical Science*, 1860), who distinguished between "temporary peripheral" and "temporary central" cases. This temporary palsy resembles the ordinary form in the character of the paralysis, in the atrophy of single muscles or of groups of muscles, and in the retarded growth or deformity of one or more limbs; but it differs in the ultimate course. As a rule, it begins with feverishness, deafness, delirium, and convulsions. In a short time over night, or in the course of a few days, the muscles become palsied to a maximum degree, sometimes in both extremities at once, sometimes in only one, oftenest in an arm; and they lose more or less completely their faradic excitability. When the voluntary power over the muscles has returned, the susceptibility to faradic and galvanic stimulation may be long absent. Rosenthal showed this last fact very clearly, and contradicted Duchenne, who said that the gravity of the prognosis was in direct proportion to the atrophy of the nerves giving rise to the lesion, which atrophy could only be found out by electrical investigation. Rosenthal affirms that in many cases, after six or nine months from the date of the affection, the electric excitability of the invaded muscles is *minus*, though voluntary movements are again present. In temporary palsy the limb does not, as a rule, become emaciated, whilst at times it does so remarkably; and yet both nerve-conduction and contractility return. Volkmann has seen instances of temporary palsy where the nerve-conduction was renewed to its full extent, but the growth of the limb was impeded.

The prognosis of complete cure is inversely as the duration of the paralysis. The duration of temporary paralysis is generally from one to two months; palsies which after a course of six to nine months do not seem to improve, must be regarded as lasting. The better the reaction to faradic currents remains, the better is the prognosis; but, on the other hand, loss of electrical excitability, at least in the first six or nine months, is not absolutely against a favourable issue; for the return of muscular contractility is not bound up with that of electrical. The smaller the extent of muscular atrophy, the more favourable is the prognosis; yet moderate atrophy does not preclude restitution of contractility and voluntary power.

One hypothesis of the pathological condition in this temporary disease is a dilatation of the small vessels with moderate collections of coloured blood-corpuscles in their interior, and perhaps of white corpuscles in the lymph-sheaths, swelling of the neuroglia from œdema, and increase in size of the stellate elements with copious proliferation of nuclei, swelling of the ganglion-cells and nerve-tubes (especially of the axis-cylinder), as seen in fresh cases of traumatic and spontaneous myelitis. These effused products, however, never soften or disintegrate; they are reabsorbed. Temporary spinal palsy is therefore a very acute polio-myelitis ending in resolution of the earliest stages of inflammatory hyperæmia and serous swelling.

Duchenne de Boulogne, in his last edition, says that in adults spinal palsies occur which are absolutely identical with the "atrophic paralysis of youth;" and that they occur from an identical lesion, viz., acute inflammatory atrophy

of the cells of the anterior cornua; that it is met with in persons up to forty-five years of age; that it generally comes on from cold and does not imply hereditary taint; the only exception to the analogy being that the osseous system does not in adults suffer so great atrophy as in children. It might be confounded with the paralysis occurring immediately after diffused myelitis; but, in the latter, sensibility is affected, the bladder and rectum are paralyzed, and sores form on the sacrum. Kussmaul agrees with him, and relates three cases supporting this view, the practical result of all being a favourable prognosis for similarly diseased persons, in opposition to Hasse's view that the complaint is dangerous to life. Brown-Séquard's experiments showed that, after severe temporary injury to the cord, entire restitution of function as regards influence of the will and electrical excitability could follow. Cold-water applications to the head seem to relieve the febrile symptoms in the first stages; but the later symptoms are most relieved by electricity and galvanism.—*London Medical Record*, Feb. 11, 1874.

—

The Hereditary Transmission of Progressive Muscular Atrophy.

Dr. Hermann Eichhorst contributes to the *Berliner Klin. Wochenschrift*, Oct. 20 and 27, a paper on the hereditary transmissibility of progressive muscular atrophy. Hereditary influence has not been as yet, Dr. Eichhorst thinks, sufficiently studied in the etiology of progressive muscular atrophy, though several accurate observers have published some cases in point; but these, in his opinion, ought scarcely to be regarded as true examples of hereditary transmission, inasmuch as they are only instances of brothers and sisters being similarly affected, without any history of their parents having suffered. Dr. Eichhorst communicates in this paper the morbid history of one family in which the hereditableness (*Erblichkeit*) of the disease in question is clearly established. He gives a genealogical table, from which it appears that this disease could be traced by tradition in the first three, and by actual observation in the rest of the members of the family through six generations, directly and collaterally; representatives of three generations are still living, and seven members are personally known to the author. The rule that the male sex are chiefly attacked, is borne out by this family with few exceptions.

In two of the cases the parents have escaped while the children have suffered, and these are, moreover, the only examples of accession before puberty. The disease began similarly in each one, viz., by wasting and enfeebling of the leg and foot, later of the hand and forearm, sometimes accompanied by pain. The affection of the hands occurred earlier in the younger patients.

Dr. Eichhorst thinks that the fact of the lower extremities being attacked first in his cases cannot be explained on the supposition of excessive muscular strain, because the patients were chiefly adult and occupied in hand labor; but most probably it is the result of the hereditary influence.

He next gives in detail the particulars of the past history and present state of ten cases. The first, being the oldest member of the family examined, and in a high degree typical of the rest, we will give somewhat at length.

Dorothea Braun, aged seventy, was healthy and strong up to her thirty-sixth year, when she was confined to bed during six weeks, and suffered in succession from inflammation of the brain, nervous fever, and diphtheria. After these followed a miscarriage; from this time her legs began to waste, and in a few years her hands also showed signs of weakness; but for some time she could still go about and do a little domestic work. In the mean time she had been delivered of her seventh child (no aggravation of her symptoms occurring from her condition). A shock, occasioned by the sudden death of her husband, produced a rapid development of her symptoms. Pain in her wrists and fingertips also supervened. At the present time there is considerable wasting of the forearm and hand, chiefly on the extensor surface, so much indeed that there is a deep groove between the radius and ulna; the tendons appear like tight strings. The thenar and hypothenar muscles are withered away; the fingers maintain a position of persistent flexion, any attempt to straighten them causing

severe pain. The thumbs alone are capable of abduction and extension. The skin of the part is cold and bluish. The lower extremities present well-marked talipes equinus: active dorsiflexion of the foot is impossible. The muscles of the lower part of the thigh, leg, and foot are wasted and feeble; the skin is cold and bluish. Respiration and circulation are quiet, the former being entirely costal. The expression of the face is intelligent; the mental faculties are unimpaired; the articulation of words is good, and the muscles of the eyes, face, and tongue are normal. The pharyngeal muscles are well nourished, but deglutition is difficult. The salivary secretion is suppressed. The fundus of the eye is normal. The thorax is flat, but well formed. The extent of cardiac dulness is normal. The diastolic sound is more distinct than the systolic. The heart's impulse is concealed.

The other patients, descendants of the above, present very nearly the same physical characters, but there are a few points of peculiarity which may be mentioned.

In one, Hermann Braun, aged thirty-six, formerly an infantry soldier, the organs of circulation are seriously disturbed. The heart's impulse is felt in the sixth intercostal space, and extends a finger's breadth on each side of the left mammary line. The cardiac dulness is much more extensive than normal. Over the apex may be heard a systolic murmur following the first sound, and a diastolic murmur displacing the second. Over the centre of the sternum both murmurs are audible, but the systolic is the louder. A loud blowing sound, increased by pressure, may also be heard over the brachial and femoral arteries. Respiration is abdominal. The left pupil is more dilated than the right. This man dates his malady from exposure to the cold and damp during his military service.

Another patient, Laura Kiel, aged forty, suffered some time, between the ages of five and sixteen, from chorea and epileptiform attacks. In her nineteenth year she had an apoplectic seizure, followed by loss of power of hands and feet. At the age of twenty-eight she had another apoplectic attack, with right hemiplegia, from which she recovered in three weeks. The catamenia became irregular, and she suffered from "blood to the head" and vertigo. Since then the muscular atrophy has progressed as in the first case, but more rapidly. At the present she walks in a peculiar manner, lifting her leg high up, then jerking forward the corresponding side of the pelvis, and finally setting down the foot in a stamping, but purposeless fashion.

Ernest Braun, aged eight, one of the two children whose parents escaped the malady, learnt to walk later than usual. He has suffered from hooping-cough, some febrile disorder, followed by dyspnœa, epistaxis, and palpitation. Cardiac dulness increased, extending abnormally in a longitudinal direction. At the heart's apex, a soft murmur follows the second sound. Over the middle of the sternum the first sound is prolonged, and the second displaced by a bruit. There is a louder first sound and presystolic murmur in the second intercostal space. There is no distinct wasting of the muscles of the leg, but the extensors and peronei respond very badly to the induced current. (This is the condition also in the other cases.) Talipes varus is distinctly present.

F. B., aged eight, the other child mentioned above, has never been ill before the present time, but like the preceding case, was slow in learning to walk. There is as yet no perceptible wasting of the leg muscles, but a degree of uncertainty in his walk. There is talipes varus. The legs feel cold, but there is no discolouration of the skin of the part.

The remaining cases need not be specially referred to, the chief interest of the whole paper lying in the fact of all the patients being members of the same family.—*London Medical Record*, Jan. 7, 1874.

—

On Saturnine Epilepsy with Psychic Disturbance.

Dr. Leidesdorf relates (*Allgemeine Wiener Medizinische Zeitung*, Nov. 4) the case of a man twenty-five years old, who had suffered from an attack of colic which left behind a trembling state of the limbs. Eight days before his admission to the asylum he had eight epileptic seizures one after the other, and

became much depressed, fearing to die if left alone. There was difficulty in putting him to bed, and he tore off his clothes and spoke incoherently. The usual signs of chronic lead-poisoning were present; the urine was alkaline, not albuminous, nor was there any kidney affection. For the most part he was unconscious, but occasionally had lucid intervals. After a few days the fits returned very frequently, he became comatose, an erythematous rash spread over the whole breast, and he died. The diagnosis was anæmia and œdema of the brain complicated with pulmonary phthisis, all confirmed by the necropsy. Neither in the membranes, brain-substance, vessels, nor connective tissue was anything abnormal found by the microscope, but on chemical examination a small quantity of lead was found in the urine and some sulphide and sulphate of lead in the brain. The symptoms closely resembled, by the general tremor, the quasi-sottish unconsciousness, the searching about on the floor, delirium potatorum, whilst the coma and amaurosis which followed the epileptic seizures might have led to a diagnosis of uræmia, if the paralyzed extensors and the blue line on the gums had not indicated lead.

Since the psychic lesion and the epileptic attacks first appeared a year after the lead-colic, they must be regarded as quite independent of it, for, according to Desboise and Tanquerel, encephalopathia saturnina may attack persons who have never before suffered from lead-disease. Tanquerel has related six such cases out of seventy-two of lead-poisoning; and accordingly saturnine epilepsy is a special form of the disease caused by lead-poisoning. It does not consist of a demonstrable anatomical change in the brain, but belongs to the class of brain-neuroses induced by poisoning. Traube, in 1861, set forth a hypothesis that lead-poisoning in the first instance affected the kidneys, and that uræmia following was the cause of the epilepsy. Although Tanquerel (the best authority on lead-poisoning) expressly declares that he never found albumen in anything like a sufficent quantity in the urine, yet Oliver and Lancereaux quote cases of Bright's disease among those poisoned by lead. In order to settle the question, Professor Rosenstein experimented on dogs, which died in consequence of chronic lead-poisoning, together with saturnine epilepsy, and his results were published in *Virchow's Archiv* for 1867. He concluded that chronic lead-poisoning causes neither albuminuria nor intense anatomical changes in the kidney, that it ends life very often through attacks of epilepsy resembling uræmic attacks, especially as in both amaurosis is set up, and in lead-poisoning diuresis is lessened. In animals so destroyed, lead can be found in the brain. The diminution of urine-flow is an accompanying symptom, not a causative one, and the basis of the epilepsy is anæmia of the brain. Acute œdema of the brain was found twice by Rosenstein, and was twice absent, and Tanquerel found it a frequent, but not constant symptom. Where it occurs it aids the anæmia, but cannot be viewed as the cause of it. How cerebral anæmia is caused by lead-poisoning is not clear; yet, from the proved deposit of lead in the brain, and (as Gusserow has shown) the considerable deposit in the voluntary muscles, the influence on the smooth muscular fibres and the brain-vessels should not be disregarded. Heubel, in his thorough experiments, intended to refute or confirm Gusserow, proves that next to the liver and spleen, which promote the excretion of lead from the organism, the largest accumulations of lead are found in the brain and spinal cord, and that it has a more intense affinity for nerve-tissue. He thinks, then, that lead directly affects the certain parts of the peripheral or central nervous system, and enters into at present imperfectly known combinations with each part, and that the chronic symptoms, such as headache, loss of sleep, stupor, melancholy, weakness of memory, etc., are due to deposit of lead in the brain, and the acute symptoms are caused by œdema of the brain, and the induced anæmia.

Tanquerel has collected thirty-one cases of lead encephalopathia running an acute course; of these seventeen were uncomplicated with epilepsy, whilst fourteen were so affected, and amaurosis was only twice established in the first, but six times in the second class. Noteworthy in all the patients is the constancy of hallucinations of sight. In the more gradually developed forms, the cases of lead psychosis resemble paralytic brain-diseases in the attacks of un-

consciousness with or without convulsions, tremblings, weakness of memory, and paralyses. But melancholic and maniacal forms are also seen, and the furious outbreaks are, for the most part, due to hallucinations of a horrifying nature.—*Lond. Med. Record*, Feb. 18, 1874.

On the Diagnosis of Hystero-Epilepsy from True Epilepsy.

M. Charcot, in a recent clinical lecture at the Salpêtrière, called attention to the traits which distinguish hystero-epilepsy from true epilepsy. In hystero-epilepsy, M. Charcot says, the attack is always announced previously by premonitory symptoms of rather long duration. In every kind of hysteria that can be called ovarian, these premonitory symptoms consist in an aura starting from the ovarian region, and reaching successively the epigastrium, the neck, and finally the head. These premonitory phenomena, so curious, and of an incontestable diagnostic value, are wanting in epilepsy; in epilepsy, the premonitory symptoms are sensations in altogether a different part, which ordinarily precede the attack only by a few seconds.

The cry of the hystero-epileptic at the moment of the fall is generally prolonged and modulated; it can hardly be confounded with the short cry of the epileptic. When the patient has fallen, the symptoms in the two affections are much alike; the head and eyes are turned in the same way, the limbs are taken with tonic convulsions; the whole body becomes rigid, the face congested, and a bloody froth flows from the mouth. But the differences soon reappear; at the moment when the epileptic is seized with a snoring which recalls the apoplectic stertor, the hystero-epileptic seems on the contrary to wake up, sometimes to return to the former condition, sometimes to offer a succession of symptoms making, in some way, a new period, which might be called the period of contortions. These contortions, sometimes very extraordinary and alarming, are very variable, and it can be said that in every patient, in spite of some traits in common, they are different. During this time, the hystero-epileptic seems to be affected by delirium, sometimes noisy, and which seems in a great part to give the contortions and attitudes and gestures an intentional character. To the contortions succeed, in the hystero-epileptics, delirium relatively quiet, one of the characteristics of which are hallucinations of the sight and hearing. They hear bells and voices, etc., they see every kind of animal, butterflies fluttering along the ceiling, lizards climbing the walls, vultures coming to peck their faces; they try by gestures to escape from these imaginary beings; at other times they imagine themselves walking over serpents, and they give jumps to avoid them, etc.

This delirium, which at this point resembles in a certain degree delirium tremens, is quite different from epileptic delirium, which consists mostly in a maniacal excitement, accompanied sometimes with extreme violence, and of a gloomy character, which renders the patients very dangerous.

If it be a woman who is threatened by an attack, the nature of which is doubtful, compression of the ovary will contribute to clear up the diagnosis; if there be no effect, then one has to do with an epileptic; in the hystero-epileptic, though the ovary may be but slightly affected, it will produce, if not always a complete arrest of the attack, at least a modification more or less marked in the symptoms.

Sometimes, and this also in hystero-epilepsy as well as in epilepsy, the attacks are connected in a series, and produce in the one case a state of hystero-epileptic disease, in the other a state of epileptic disease. In these cases thermometry gives important assistance; in the epileptic in a state of disease the temperature rapidly attains a great height, 40°, 41°, and even 42° (Cent.), and death often closes the morbid scene; in the hystero-epileptic, in spite of the almost incessant repetition of the attacks of an extreme intensity, the thermometer marks 37.50°, 38°, and a few tenths. After 50, 100, and 200 attacks of hystero-epilepsy, the temperature is definitely the same as it was at the end of the first attack.

Besides the convulsive accidents there are, adds M. Charcot, other charac-

teristics which facilitate the diagnosis. Epileptics are irascible, subject to impulses which make them dangerous; hystero-epileptics are capricious, fantastic, but are on the whole hardly dangerous. Vertigo, which is so frequent in epilepsy in the interval of the attacks, has not its representative in hystero-epilepsy.

The mental condition, which has already been treated by many authors, is seen in the end to be not different in the two diseases. The hystero-epileptics preserve those intellectual faculties which they had originally. One of the patients shown was in this respect the same as she was thirty years ago in spite of the persistence of the disease. The epileptic, on the contrary, if the disease be intense, loses his intelligence every day, and at the end of a time more or less short, he falls into a kind of stupor, which generally ends in true dementia. These principal distinctive marks, said M. Charcot, useful already to establish a nosographic demarcation, will suffice, in general, to separate clinically two affections of which the prognosis markedly differs.—*London Med. Record*, March 18, 1874.

—

Epidemic Goitre.

In some recent numbers of the *Gazette Médicale* (Jan. 10 and Feb. 7), Dr. Michaud gives an account of one of those curious epidemics of goitre which every now and then break out in the French army. This one occurred during the months April to September, 1873, in the 75th Regiment of the line, stationed at the garrison of St. Etienne. Of the mean effective of which the garrison during this period consisted, there were about 280 soldiers who became the subjects of goitre. Dr. Michaud, however, is not able to give an account of all these cases, but only of fifty of them who were sent to the Hôtel-Dieu of St. Etienne, of which he is surgeon.

Sometimes the affection came on with gradual tumefaction of the neck without other symptoms, but in other cases it was attended by pain, dysphagia, congestion of the face, difficult respiration, and inability to march. The tumefaction was at first diffuse, soft, and indolent, but soon the tumour became large, indurated, and well defined, the lateral lobes of the thyroid projecting more or less under the skin. The right lobe was especially affected in about half the cases. In considering the causes of the disease, epidemic goitre must be distinguished from endemic, in which these are very obscure, while in the epidemic form they can generally be made out. In the present instance forced marches in a mountainous country and an insufficient dietary seem to have been the prominent causes. The forced marching combined with ascension, produced great congestion of the thyroid, which by frequent repetition passed into hypertrophy of the gland. Dr. Michaud does not attribute much influence to the local action of cold on the glands, in the way of currents of air, etc., believing that, were this operating, bronchitis, laryngitis, etc., would oftener accompany the goitre, as has been the case in some epidemics, in which also the thyroid itself has been more acutely painful than in the present instance. The insufficient diet allowed to the men during their arduous marches has also acted as an adjuvant, although its precise mode of action is not determinable. Its reality, however, is shown by the fact that the officers and sub-officers who underwent the same fatigues as their men were able to resist their ill-effects, owing to better regimen; and by the excellent effects which a tonic treatment and a nutritious diet exerted in securing a prompt cure of the disease. The iodine treatment completely failed, and many cases which had long been subjected to it in the garrison hospital without avail, soon recovered in the Hôtel-Dieu under quinia and iron, with a substantial diet of roast meat and wine. When these means were employed in the early stages of the affection, they rapidly succeeded. The anæmic and emaciated condition of several of the patients, indeed, strongly indicated this procedure.—*Med. Times and Gaz.*, Feb. 21, 1874.

On Rheumatic Paralysis of the Larynx.

Professor De Renzi relates in the *Liguria Medica*, 1874 (quoted in *Gazette Medica Italiana-Lombardia*, February 28), the case of a servant maid, aged seventeen, who, in consequence of a severe cold caught a little before Christmas, had cough, sore throat, and afterwards aphonia. When she was examined on December 31, the pillars of the fauces, the velum pendulum palati, and the back of the pharynx, were considerably reddened. Laryngoscopic examination showed redness of the entire laryngeal mucous membrane, and especially of the vocal cords, which remained immovable when she attempted to speak: there was no ulceration. She had slight transient headache, a sensation of a ball in her throat, and was easily excited. The diagnosis was, rheumatic paralysis of the larynx, with slight hysteria. Hydrotherapeutic treatment being without effect, faradization was applied on January 1, to the skin over the larynx, by the electric brush. The next morning, on awaking, she was able to speak, though with rather muffled voice; and the ability to speak remained till the evening of the 7th, though the electricity was not again applied. On that day, the fauces were found to be slightly reddened; but there was as much redness of the vocal cords as on the first day. On the 8th, she awoke in a state of aphonia; but the voice returned after the application of electricity, and remained normal up to the 16th, under daily faradization of the skin.

This case, Dr. De Renzi says, suggests two important considerations. 1. In rheumatic paralysis of the larynx, it is admitted by many that the laryngeal muscles are paralyzed through hyperæmia and collateral œdema, dependent on catarrh of the mucous membrane. In the present case, the paralysis was quite independent of the catarrh, since the former disappeared twice, while the latter remained. And it may be supposed that the same cause produced catarrh by its action on the mucous membrane, and paralysis by its action on the laryngeal nerves. 2. The statement of Bruns, Mackenzie, Eulenburg, etc., that laryngeal paralysis requires to be treated by the direct application of electricity to the muscles of the larynx by means of the laryngoscope, is not correct. In the case related, cutaneous faradization caused the paralysis to disappear with astonishing rapidity.—*London Med. Record*, April 15, 1874.

—

Pulmonary Hemorrhage due to Injury of the Encephalon.

At one of the recent meetings of the Société de Biologie, Dr. Baréty communicated the details of a case realizing accidentally Brown-Séquard's experiments, in which traumatism of various parts of the encephalon determined pulmonary hemorrhage. In Dr. Baréty's case the patient (a female servant, aged thirty-five) had fallen from a first floor and fractured the base of the cranium. After various symptoms, the woman died, and at the post-mortem meningeal hemorrhage of the right hemisphere, sero-sanguineous effusion in the lateral ventricles, congestion and pulmonary hemorrhage of the right side, and subpleural hemorrhage of the same side were noted. This is Dr. Baréty's eighth case in which various pathological modifications dependent on hemorrhage and circumscribed softening of the brain, and seated on the paralyzed side, have been shown. The previous seven were communicated to the same Society in its sitting of July last.—*Lancet*, May 23, 1874.

—

Rupture of the Right Auricle of the Heart from Sudden Compression of the Thorax.

Dr. Robert Amory, of Brookline, reports (*Bost. Med. and Surg. Journ.*, Dec. 11, 1873) that in May, 1873, he was called between the hours of 3 and 4 in the morning, to a railroad station in Longwood. On his arrival, the only history to be obtained was as follows: A man, about 23 years of age, was trying to "couple" a passenger car, having a Miller platform, to another car in front with a common platform. In doing this, he stood between the two cars, facing the forward one, with the pin held up in one hand. The engine

backed the forward car on to the hinder one, thus compressing the thorax of the man between them; but not so forcibly, as was afterward ascertained by a post-mortem, as to break any bones either in front or back of the thorax. Judging from the circumstances, the platform of the forward car was on a level just below that of the diaphragm, whilst the level of the other platform behind must have been at least four inches higher, bringing the compression behind at the scapular region. Dr. A. arrived about twenty minutes after the accident, and found the body of the man lying upon its back on the floor, in a state of commencing post-mortem rigidity. This condition of rigidity he reserves for future consideration, and relates the facts of the autopsy, which was performed six and a half hours after the accident.

Complete muscular rigidity, the right arm extended upwards in a state of semi-flexion at the elbow-joint, the left arm very slightly flexed at the elbow-joint, but hanging down by the side. No marks of external bruise or abrasion upon any part of the skin. No appearance of fracture of any bone. After making an incision along the median line over the sternum and exposing the bones of the thorax, we cautiously removed the sternum by cutting the costal cartilages, and the anterior mediastinum was exposed to view. The external surface of the pericardium was whitened and covered here and there with white flocculent or fibrinous particles. Its appearance was rough. On opening the pericardial sac, about a pint of clear serum poured out, which was soon followed by reddened serum, and afterwards by dark thick blood. This latter seemed to have been present in different strata, the upper being thin serum, and the lower thick blood and a few coagula. After cleaning out the interior of the sac, the dark blood was seen to pour out from an opening on the anterior aspect of the right auricle. After the auricle had been emptied of blood, we examined this opening, and found that in the inner layers of tissue the opening was wider than in the outer layers. A careful examination of the cavities of the heart showed no appearance of valvular disease or fatty degeneration.

Dr. A. assumes that the sudden and severe compression of the thoracic walls was transmitted to the thoracic viscera at a time when the right auricle was full of blood pouring in from the venæ cavæ, and consequently when its walls were thinnest and weakest; the blood not being emptied fast enough caused a rupture of the auricular sac from the sudden compression.

—

Treatment of Typhoid Fever by Fatty Inunction.

Dr. Löwinson (*Berlin. Klin. Wochenschrift*, 1873, No. 28) has substituted for cold baths, where they are contraindicated or borne badly, general inunction with bacon, a method which he has employed with success for three years. He has ascertained that, an hour after the inunction, the temperature falls at least 1.8° or 2.7° Fahr., and that the fall is never less than half a degree. He has used the inunction twice a day for one or two weeks, washing the skin every third or fourth day with eau-de-Cologne, which produces rapid evaporation. Since he has followed this treatment, he has not lost one patient. Schneemann, of Hanover, was the first who pointed out that inunctions with bacon produce a decrease of temperature. It has been proved by experiment that animals can be made to perish from cold by this method.—*London Med. Record*, Dec. 17, 1873.

—

Rest in the Treatment of Certain Diseases of the Chest.

Dr. Eugene C. Gehrung, of Denver, Colorado, advocates (*St. Louis Med. and Surg. Journ.*, Nov. 1873) the use of rest in the treatment of pneumonia, pleurisy, pleuro-pneumonia, and possibly bronchitis, obtained by the use of bandaging the chest to such an extent, that thoracic breathing is almost prevented, and abdominal breathing substituted in its place. The compression of the chest-walls is to be made with a broad bandage with rollers, or with any other contrivance that may have the same ultimate effect. For the double purpose of equally distributing the pressure of the bandage, and protecting the

parts from the effects of sudden changes of temperature, previous to placing the bandage, he covers the chest with a thick layer of cotton batting.

The results of these simple operations, Dr. G. says, are remarkable. Not only can the pain in these affections be thus controlled, but all the other symptoms may be made to rapidly disappear. By the employment of this method, all the usual complications and sequelæ may be likewise avoided. Neither will abortions occur if the patient happens to be a pregnant female. Such at least have been the favourable results obtained in the cases I have treated in this way. To be fully successful, it is necessary to commence the treatment at the very onset. I fully believe that any failure which may occur with this treatment in the hands of other practitioners will result from its too late application; but even then much good of a palliative kind will result. The bandage acts, in these cases, on the principle of a splint applied in inflammatory affections of the joint. It is, of course, inadmissible in these organs to produce complete rest; but, nevertheless, the partial rest obtained in this way appears to be all that is required in arriving at the above quoted beneficial results. The walls of the chest encased in this manner are so doubled in their strength and firmness, and the patient provided with such firmly resisting support, dedends no longer on the former yielding and elastic chest surroundings, to resist the succussions caused by the cough; the mental as well as the physical relief is instantaneous. The patient, who previously was obliged to consider each respiration lest it should cause him pain, is now relieved of all care. In fact, he cannot, even if he would, draw a deep breath, for the bandage does not allow of it.

In the few cases where I have had an opportunity of making thermometric observations, this mode of treatment succeeded far better in permanently reducing the temperature, and the pulse as well, than the administration of cardiac sedatives.

—

The Action of Valerian in Diabetes Insipidus.

M. Bouchard (*Comptes-Rendus de la Société de Biologie*, Paris, p. 255) has lately investigated the influence of valerian on diabetes insipidus, and finds that it acts by diminishing the excretion of urea, and so secondarily the polyuria. After eight grammes of the extract of valerian the urea excreted may fall to forty grammes, or about 600 grains, per diem; and there is no diminution in the amount of urine observed until the urea has fallen below its normal quantity, and then only 2000 or 1500 grammes—*i. e.*, four or three pints—may be excreted in twenty-four hours. In other diseases the action of valerian is variable, but where any exists it can always be referred to the diminution in the excretion of urea which it produces; and if there is no azoturia the action is *nil*. Thus, in diabetes mellitus, if urea is in excess, it may fall while the patient takes valerian from forty-five grammes to twenty-five or even nineteen per diem, and then the polyuria and glycosuria diminish in their turn. Dr. Bouchard considers that the action of valerian is to spare waste of tissue, and in support of this view he mentions that certain Indians of Lower California and Mexico are accustomed to go through a course of it for a month before they enter upon a severe expedition, so that they may be better able to bear fatigue. He gives it in frequent small doses, and gradually increases the amount taken until he has in some cases reached a dose of thirty grammes in twenty-four hours.—*Med. Times and Gaz.*, May 23, 1874.

—

On the Hypodermic Injection of Quinia in Typhoid Fever.

Dr. Ravicini, writing in the *Rivista Clinica di Bologna*, January, 1874, recommends the hypodermic injection of quinia in the treatment of typhoid fever. He makes a solution of 5 grammes of sulphate of quinia in 50 grammes of distilled water, and adds 10 centigrammes of hydrochlorate of morphia. With this solution he makes, early in the morning, by means of a Pravaz's syringe, two injections, each of 85 centigrammes; two others at noon; and two

in the evening. He keeps the patient under the influence of the medicine for several days, accompanying the disease in all its phases.

Under this treatment, he says, the sordes disappears from the mouth and teeth, the headache, meteorism, and gurgling in the right iliac fossa are greatly diminished, the spleen is reduced in size, and the countenance becomes more composed. He does not believe that the quinia at once cuts short the course of the disease, but that it favours its disappearance, since he has seen nearly all his patients convalescent at the end of the second week, or at most of the third. It is only when the disease has not been treated from the beginning, that it has been prolonged beyond the third week.

The morphia he believes to moderate the symptoms of nervous disorder which are so constant in typhoid fever.—*London Med. Record*, May 27, 1874.

Surgery.

On the Safety of Torsion in Amputation.

Mr. Thomas Bryant, Surgeon to Guy's Hospital, publishes in *The Lancet* (March 21, 1874) brief notes of a case which will be read with interest, supporting as it does the practice of torsion, and telling against the use of the carbolized catgut ligature.

On Friday, March 6th, I was called upon to remove a mutilated forearm from a man aged twenty. I amputated below the elbow-joint, and arrested bleeding by twisting all the arteries with the exception of the interosseous, to which I applied a ligature of carbolized catgut. I could not twist this artery on account of its intimate connection with the interosseous membrane. At the end of six days hemorrhage took place from the stump, which was stopped by raising the limb; but as it recurred towards night the stump was opened. It was then made out that the bleeding had taken place from the interosseous artery. The vessel was again tied by my dresser, and the man has gone on well since.

This is the only case of secondary hemorrhage from a stump that has occurred to me since I began the practice of torsion of arteries in January, 1868; and it is interesting to know that in it the bleeding came from an artery that had been ligatured, and that the ligature was of carbolized catgut.

We have now had at Guy's Hospital upwards of 200 cases of amputation of the thigh, leg, arm, and forearm, in which all the arteries have been twisted (110 of these having been of the femoral artery), and no case of secondary hemorrhage.

—

Carbolized Ligatures.

At a meeting of the Bombay Physical Society (*Minutes of Meeting*, May 2, 1873), Dr. Gray read a case of ligature of the right common carotid artery for aneurism. The chief points of interest in this case were as follows: The ligature employed was a silk one, soaked for two days previous to the operation in a strong oily solution of carbolic acid. After tying, the ends were cut short. The wound healed perfectly, but the patient died two months and four days after the operation, from exhaustion and scurvy. At the *post-mortem* examination, "the ligature was found just as it had been applied, but closely surrounded by firm fibrous tissue: not a particle of it had been absorbed or otherwise altered." The parts around were "perfectly natural and healthy, and appeared as if they had never been disturbed." On laying open the artery, it was found that, while the outer coat was intact, "the inner coats had obviously been divided," "but nevertheless the artery, except the part immediately included in

the ligature, was open, although contracted, containing only some particles of loose clot."

Dr. Gray remarked that the case demonstrated that there is no danger of a silk ligature, prepared and applied with proper care, becoming an irritant foreign body when left in the tissues; and that, as silk seems to take a much longer time to become absorbed than catgut does, there is less risk with a silk ligature than with a catgut one.—*London Med. Record*, Dec. 24, 1873.

—

On Cutting out and Deligating Hard Sores by Elastic Threads.

Isidor Neumann recapitulates (*Allgemeine Wiener Medizinische Zeitung*, Sept. 9, 1873) the already recorded experiments of Langenbeck and Ulrich (*Canstatt's Jahresbericht*, 1868), and P. Vogt (*Berliner Klinische Wochenschrift*, 1871, No. 2), in which, if great care were taken to cleanse the sore and surrounding skin thoroughly with solution of permanganate of potash or carbolic acid, and the knife were carried wide of the induration, the wound, having been sewn up, would sometimes heal without further ulceration; and during the time the patients were under observation, often a considerable interval, no constitutional symptoms showed themselves.

Neumann then relates two cases of his own, the only two, out of several performed in the last six years, that have been successful. In the first he cut out from the foreskin an induration of the size of a hazel-nut. The wound did not heal at once, but in eight days formed a deep ulcer, and was not cicatrized for six weeks. The patient has, however, had no further symptom of syphilis. The length of time that has elapsed is not stated. In the second case Neumann found a sharply defined induration of the upper part of the prepuce that had been unnoticed four weeks, and as large as a hazel-nut. The lymphatic glands of the right groin were only slightly enlarged, and not at all on the left. The elastic tube was applied round the induration. The part separated eight days later, leaving a clean granulating wound without induration, which healed in four weeks. Since this, five months have elapsed without further sign of syphilis.

Neumann puts forward these cases rather to draw the attention of others having greater opportunities than himself for trying the experiment, and also mentions that these cases may be similar to those of well-marked induration, occasionally seen where general syphilis does not follow, whatever treatment may have been adopted.—*London Med. Record*, Dec. 24, 1873.

—

External Application of Chloral in the Treatment of Cancer.

M. Constantin Paul employs (*Bull. Gén. de Thérapeutique*) with great advantage suppositories of hydrate of chloral, introduced into the vagina in the treatment of cancer of the uterus; and in a number of cases in which he has employed this method of treatment in the Pitié and Hôpital Saint Antoine, he has always obtained the three following results: Marked diminution of the pain; a favourable change in the cancerous sore; and disappearance of the fetid odour. The latter fact confirms the anti-putrid and anti-fermentable properties, which have recently been attributed to solutions of chloral by MM. Dujardin-Beaumetz and Hirne. M. Constantin Paul employs suppositories containing one gramme of chloral enveloped in cacao butter. M. Martineau has also obtained excellent results from the use of chloral in cancer or cancerous sores, either of the breast or of uterus. A diminution of the pains, complete disinfection, and, in fine, a very rapid change in the altered surfaces is obtained. He employs charpie, soaked in a solution of 1 gramme of chloral dissolved in 25 grammes of water, with which the charpie must be kept constantly moist. M. Martineau has also observed a decrease in the metrorrhagia by the employment of chloral in this way in uterine cancer.—*Irish Hosp. Gaz.*, May 1, 1874.

Treatment of Erysipelas.

Kaczorowski gives (*Berliner Klinische Wochenschrift*, and *Archiv für Dermatologie und Syphiligraphie*, 1873, 3 and 4 Heft) a new method for the treatment of erysipelas. Since its introduction into the hospitals of Posen, there has been, he says, no fatal case or relapse noticed. The affected portions of skin are rubbed gently every three hours with a mixture of carbolic acid and turpentine (1 to 10), while the surrounding parts are more thoroughly treated. Compresses soaked in lead-water are then applied, and finally, according to the extent of the disease, ice-bladders are laid on, or the whole part is enveloped in cold-water compresses, which are frequently changed. The redness is more intense at first over the rubbed places, or vesication may ensue, but the epidermis soon becomes dry over the diseased parts, and the skin is slowly tanned. In the course of twenty-four, or at the most forty-eight hours, the disease is cut short, and the temperature and pulse suddenly fail.—*Boston Med. and Surg. Journ.*, June 4, 1874.

—

Gunshot Wound of Brain.

The following case of this is related by Dr. P. W. Van Peyma (*Buffalo Med. and Surg. Journ.*, Dec. 1873). A man aged 50 was found comatose and brought to the Buffalo General Hospital. He subsequently was sufficiently roused to give his name and age. He died six days after admission. On *post-mortem* examination the meninges on the right side were found considerably congested. "On removing the brain a collection of pus was found at its base, extending from the medulla oblongata forward. The lateral ventricles were also found filled with a purulent collection. At this moment, as the incisions were being extended, something was heard to fall on the tray on which the brain was lying. To our utter amazement this was found to be a bullet. The ball, which was of small size and considerably flattened, had been liberated by the knife. The conviction was forced upon us that the external opening through which the ball had passed had been overlooked during the life of the patient, and that this was the real cause of death. But our astonishment was increased when, after a careful examination of the surface, no opening could be found. As a last resort, the cranium was examined from the interior, and on the anterior surface, above and a little to the right of the left orbit, was found a fracture of the frontal bone, the internal table of which was extensively fissured. With this as a guide, we again made search for the external aperture, and again failed in finding an opening, but did find a discolouration of the skin over the seat of the fracture, of a lead colour, circular in shape, and the size of the ball. There was not the least sign of a wound or the slightest scar. The wound, which must have existed, had healed perfectly, and left nothing but this leaden discolouration to show its former presence. This discolouration, which even after death was but slightly noticeable, must have been less so during life. The course of the ball through the brain could still be traced by a probe to the place where it had lodged near the anterior surface of the medulla. The opening in the bone was filled in with a gelatinous material through which a tenaculum passed readily.

"The entire want of the previous history of the case is much to be regretted. How long the ball had been there, or what the patient's health was during this time, are questions which must as yet remain unanswered. Sufficient time had certainly elapsed to allow the external wound to heal."

A somewhat similar case is recorded by Dr. T. F. Prewitt (*St. Louis Med. and Surgical Journal*, November 1873), Resident Physician of the City Hospital, St. Louis. A man æt. 32 shot himself with a pistol, the ball entering the forehead about an inch and a half above the supra-orbital ridge. He recovered in a little over a month, and without marked impairment of intellect. He was attacked about ten months afterwards with pain in the head, followed by erysipelas, became comatose, and died eleven months after the injury. On *post-mortem* there was found at the under surface of the anterior left lobe of the

cerebrum a sac containing about 6 oz. of pus. "The sac extended in width from the longitudinal fissure to the outer and under border of the left anterior lobe of the cerebrum. The anterior border of the sac was a few lines posteriorly to the anterior border of the left lobe, and extending backwards nearly to the fissure of Sylvius. In front of this sac, and encysted, lay a small leaden bullet, with some small fragments of bone. That portion of the brain lying in front of the sac was adherent to the dura mater. The sac on its under surface was not formed by the dura mater, nor was it attached in any way to it. The ventricles had no communication with the sac. There was a straw-coloured liquid in the left ventricle and also in the subarachnoid space at the base of the brain. No other lesions were observed."

—

Spontaneous Myosis.

Dr. Galezowski, in one of his lectures, describes an obscure affection of the eye which he terms spontaneous myosis or permanent contraction of the pupil. This affection, he said, is rarely met with in a separate or distinct form; it is more frequently accompanied with tonic spasm of the accommodator muscle of the eye, and with certain disturbances in the function of vision.

These spasmodic contractions may be produced by hypodermic injections of morphia, as shown by Graefe, or by instilling into the eye a solution of eperine (the alkaloid of the Calabar bean); but, according to Dr. Galezowski's experience, opium or morphia will not produce myosis unless the quantity introduced into the circulatory system be comparatively large. He has observed that when opium is administered internally in ordinary doses, it has no effect on the pupil; whereas, the hypodermic injections of morphia produce a marked effect, and the myosis lasts a certain time, extending even beyond several months. In these cases the functional disorder of the eye is due not to myopia, but to the spasmodic contractions of the accommodator muscle, which prevents the eye being fixed on small objects; hence the fatigue and disturbance of vision.

A second variety of myosis is that which depends upon the nervous affection called hysteria. This form comes on suddenly, and may be produced by the slightest mental emotion. It is observed in nervous subjects, simultaneously with other symptoms of nervous disease, whether of a paralytic or spasmodic character.

There is still another variety of myosis, and particularly that which is observed in locomotor ataxy. This is the symptomatic myosis of spinal affections. It is met with at a late period of these affections, with or without any lesion of the optic nerve, and is the direct consequence of alteration of the posterior portions of the spinal marrow, which become detached from the cilio-spinal region, and which, according to Budge and Claude Bernard, are situated on a level with the two last cervical vertebræ and the two first dorsal. The myosis of ataxics exists ordinarily in both eyes; but it may first appear in one eye, and only attack the other after several months or even years. Atrophy of the papilla (entrance of the optic nerve) in ataxic subjects, is frequently followed, after some time, by well-marked myosis which never disappears; but which, on the contrary, goes on increasing, according as the general affection (locomotor ataxy) progresses. According to Professor Sée, myosis in ataxic subjects may exist without atrophy of the papilla.

These different varieties of myosis were illustrated by cases, and Dr. Galezowski concluded by remarking that as the causes of this affection are various, the treatment must necessarily be directed against these causes. Thus, in toxic myosis (the first variety referred to) he has employed with advantage instillations of a weak solution of atropia into the eye, with belladonna pills and ferruginous preparations internally. In the hysterical form, he recommends Barége baths, blisters to the nape of the neck and along the spine, instillation of atropia into the eye, tonics, generous diet, absolute rest of the eyes, and moderate bodily exercise.—*Irish Hosp. Gaz.*, April 1, 1874.

An Improved Method of Abscission of the Anterior Portion of the Eyeball.

Mr. Brudenell Carter read a paper with this title at a recent meeting of the Royal Medical and Chirurgical Society (*Med. Times and Gaz.*, April 11, 1874). After mentioning the conditions that call for abscission of the anterior portion of the eyeball, and the way in which the operation once practised was improved by Mr. Critchett, the author related a case in which Critchett's operation was followed by sympathetic ophthalmia and loss of sight. He attributes this result either to traction upon the ciliary nerves in the cicatrix, or to laceration of one of them by one of the needles used to transfix the eye. In order to set aside these dangers, and at the same time to obtain a stump well calculated to carry an artificial eye, he has devised a plan of operating which is described. It consists of uniting the tendons of the recti muscles by catgut sutures, and then of uniting the conjunctival wound over them, no sutures being passed through the ocular tunics themselves. A patient who had been operated upon in this manner was exhibited to the Society.

Mr. Higgens said the usual plan at Guy's Hospital was to cut out the anterior portion of the eyeball, and then bring the conjunctival edges together; and they found this a better plan.

Mr. Brudenell Carter had had no experience of this, and did not think it would give so good a stump as that formed by the tendons, etc.

—

On Rupture of the Crystalline Lens, and on the Mechanism of Accommodation.

Dr. Fumagalli (*Annali Universali di Medicina*, November, 1873) relates the case of a lad, aged fifteen, who, while in a wood, was struck in the eye by the branch of a tree. He felt much pain at the time, and had temporary obscurity of vision, but it was not till some days later that he found that the sight in the eye was gradually becoming more impaired. On examination, the iris and cornea were found to be sound; but the anterior part of the capsule of the lens was divided vertically in the middle, and the lens was opaque. The case was clearly one of traumatic cataract.

An important phenomenon was observed. The edges of the fissure receded from or approached each other, according as the patient looked at near or at distant objects. This, Dr. Fumagalli observes, confirms Helmholtz's theory of the mechanism of accommodation.—*London Med. Record*, May 27, 1874.

—

On Amputation of the Tongue in a Child.

Professor Azzio Caselli relates (*Bulletino delle Scien. Med.*, part v. vol. xvi., quoted in *Gazzetta delle Cliniche*, No. 14, 1874) the case of a boy, aged nine, who injured his tongue by falling with a stalk of hemp in his mouth. A cancerous tumour followed, and in the course of about two years extended over the whole right half of the tongue, except the apex; it affected the middle part of the left half, and the right side of the floor of the mouth. At the part where the tumour had commenced there was a large ulcer, which discharged blood and ichor. There was no enlargement of the neighbouring lymphatic glands; but the boy was emaciated and anæmic.

He was admitted into hospital on September 1, 1873. He was found to have a very acute attack of glossitis, which had followed the mastication of irritant substances, and which interfered with breathing. This was subdued in a few days by local blood-letting, cold applications, and the administration of food through a tube introduced by the nostrils. On the 11th of the month, Professor Caselli proceeded to remove the entire tongue by Rizzoli's method, dividing the lower jaw near the median line, and applying a ligature. On the fifth day, seeing that the tumour was slow in coming away, he removed it by a Chassaignac's écraseur; there was no hemorrhage. In thirty days the wound was quite healed, and deglutition and speech were normal. Although more than three-fourths of the tongue were removed, the boy can pronounce distinctly words containing the letters *s* and *z* (*ts*).—*London Med. Record*, May 27, 1874.

Observations on Cleft Palate.

Sir William Fergusson states (*Brit. Med. Journ.*, April 4, 1874) that experience has led him to give up the plan of Dr. Mason Warren, of trying to close the gap in both soft and hard palate at the same time, even in instances where the defect in bone was but slight. For many years latterly he has ceased to meddle with the front part of the gap, where the bones have been implicated, reserving the attempt for a subsequent operation; but to facilitate the approximation of the margins of the soft palate he has often followed the plan practised by Roux, of making transverse incisions, so as to divide the soft parts from the posterior margin of the osseous palate. Whilst he has had reason to feel satisfied with this step, he has in no way found his efforts to close the hole in the hard vault more successful. From time to time, on subsequent operations for the express purpose of closing such openings, he has been highly satisfied with Mason Warren's plan of separation—that of paring the soft tissue from the hard, by working from the margins outwards to the alveoli—sometimes, in addition, making the lateral incisions proposed by Mr. Field of Brighton, or by making these lateral incisions first, and separating the soft tissues towards the mesial line. In some instances he has had good results from a sort of gliding process, facilitated by separating the front end of one of the flaps from its connections; but, altogether, the success of these operations has not been equal to his anticipations or desires.

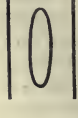
My impression, says Sir William, is, that the frequent failure in this latter kind of operation is induced by the contraction of granulations, whereby the lateral portions are so drawn towards their original position, that the union in the central line is either prevented or broken, and thus the gap remains when the side-flaps have resumed their original positions. An idea came into my mind years ago which, however, I thought so wild, that I could not dare to bring it into practice. Repeated failures, however, by usual methods, brought it more forcibly into my thoughts, and at last I resolved to put it into execution. My project was that, instead of making the separation between the soft tissue and bony palate, for a quarter of an inch or so, I should divide the palate, soft tissue, and bone, about a quarter of an inch from the margin of the gap on each side, cutting the soft tissue in the roof of the mouth with a scalpel, and the bone, with mucous membrane above in nostrils, with a chisel, by means of which I could push the margins towards the mesial line; so that, having been previously made raw by removing the mucous membrane, they might be brought into apposition and held so by stitches.

This project was carried into execution in King's College Hospital on November 22, 1873, in the following manner:—

J. H., aged 18, had the soft palate closed two years ago; a small aperture remained in the hard, which had been twice operated on unsuccessfully by the ordinary proceeding. The patient was placed under the influence of chloroform, and the mouth held open by Wood's gag. The aperture was about this size (Fig. 1); the edges were made bare by dissecting off the mucous membrane; then, by means of a small scalpel, an incision was made on each side to this extent (Fig. 2). The back part of these wounds penetrated the soft palate, and in front they were close to the bone. Then the point of a chisel, like this (Fig. 3), was forcibly, but carefully, pushed upwards through the bone into the nostril through each wound, and, by slight lateral movements of the blade, each lateral portion could be readily made to meet the other in the mesial line, whereby the raw margins made at first could be placed in apposition. The parts were then held together by a single stitch introduced in the usual way, passing, on each side, through the soft tissue, so that it might remain steadily in one place. At the conclusion, the conditions seemed much as after the operations formerly effected. Subsequently, granulations filled the lateral gaps as on previous occasions; but when the stitch was removed, union in the centre seemed firm, and was not disturbed by any dragging power, such as I supposed had, in earlier operations, drawn the flaps upwards and outwards

Fig. 1.

Fig. 2.



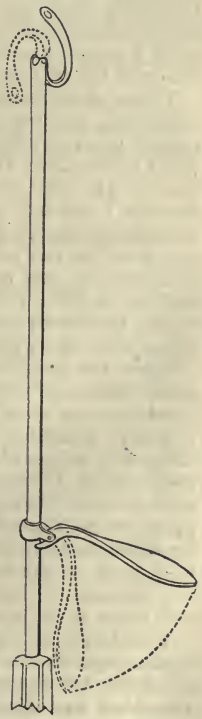
towards the bone. The result was perfect, and I have heard nothing to the contrary since the patient left the hospital. On the same day, I repeated similar proceedings on a patient who had had a successful operation on the soft palate, but on whom I had been unable, after four different attempts, to

Fig. 3.

close a fissure in the hard. Here the opening was larger, being about this size (Fig. 4). Similar steps were followed, and to all appearance, during the first eight days, with similar results. Two stitches were employed, but, on removal, the edges, where one had been, seemed to fall asunder. Two days afterwards, a new stitch was put in, by means of an ordinary aneurism needle, and the margins made raw by a gentle scrape. The hole was thus closed; and, on removal of the stitch, eight or ten days later, union was perfect. Since this patient left the house, a small separation has taken place, which has left an opening a little larger than the point of a probe. I have recently had made, by Matthews Brothers, a modification of a most ingenious needle suggested long ago by my friend Mr. Brooke, of Westminster Hospital, for introducing stitches into the soft palate in operations on cleft in that part. The point of his needle was sharp; and I have often used it with much satisfaction. The point here, it will be observed by the figure 5, is blunt, like that of a common aneurism-needle. The dotted lines indicate the course of the point, as the projecting handle at the side of the shank is pressed.

Fig. 4.

Fig. 5.



Soon afterwards, a third case came under notice in private practice, wherein, after closing the soft palate, I had failed to succeed with the hard, by the ordinary proceeding. Here the opening was midway in size between the cases above related. The steps were much the same as in the first, excepting that I passed the thread through the lateral apertures without fixing it in the soft tissue. After the knots were tied, they never slipped from their position. They were left some days longer *in situ* than in the previous cases, and on removal, union in the mesial line was perfect. This union, I have recently heard, remains perfect.

A fourth case has recently come under my care at King's College Hospital. The gap here was larger than in the three preceding cases. It was an inch long, by more than a quarter of an inch wide. The lateral incisions were of proportionate length, and when the parts were brought together, a gap into each nostril was visible. Here three stitches were used, and, as in the case last related, they were passed through the side incisions, without piercing the soft tissue.

A fifth case is now under notice. Here the ordinary operation was performed on the soft palate in June, 1873; and the front part, which involved a small portion of the hard palate, was left untouched, in the conviction that it would be better to leave it alone until a future date. The aperture left was at the end of the healing process, of this size. Here the scalpel and chisel were used as above described, and the parts were satisfactorily placed for union in the mesial line.

From the experience already obtained, as also from careful consideration of the subject, I feel justified in calling attention to this addition to what is already more or less familiarly known to those who have studied this complicated subject. At first thought, several strong seeming objections arise. It might be doubted if the osseous palate could be cut and moved in the way described.. If an experiment were made on a roof of bone in the natural condition, it would be impossible; for, if the chisel were pushed through the bone a little on each side of the mesial line, it would be impossible to move the intervening portion towards the middle line, because the space is already filled up. This objection does not hold, however, in malformation; for the space is not filled up, and the vacancy permits the osseous margins to be approximated. Then, division of bone on the two sides, and breaking the front part of each, seems so rude, rough, and destructive, that the idea arises that caries or necrosis might ensue. But in reality the process is, in my opinion, less hazardous than when the flaps of soft parts are dissected or forcibly pushed or drawn off the bone. Besides the fact that these parts do not always unite, one flap or both will occasionally slough, and so things are rendered worse than ever.

In favour of the proceeding about which I now write, I can state from experience that the loss of blood is much less; and on that account there is less trouble in mopping out the pharynx, and consequently less hazard in the use of chloroform; that the tissues on the lower surface of the bones are not so much disturbed or divided as by the older process; that the periosteum and their tissues below are less disturbed than otherwise; and that, from all these circumstances, there seems less risk of sloughing of the semi-detached parts.

As to the healing of the lateral wounds, I am of opinion that the gap will invariably be closed, and that in the bond of union there will be a firm cicatrix of soft tissue, and possibly bone; that the vault of the mouth will be as firm as in a normal condition, and probably firmer than where a fortunate result has followed the process of Warren, Field, or Langenbeck.

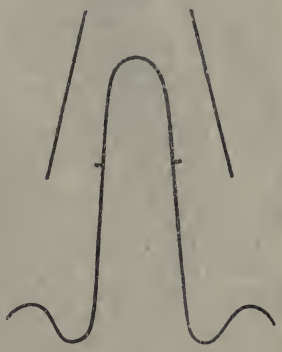
These observations apply solely to instances where the surgeon, in a first operation, has not attempted to close the gap, or has failed in a design to secure union throughout. They will apply, however, with equal, even greater, effect to instances where heretofore, in my own experience, I have left the front part of the cleft untouched. I remember scores of instances of the kind, wherein I now feel confident the whole gap could have been closed by the process above described, with, as I imagine, as much success as attended the operation on the soft palate. In cases of defective hard palate, after the usual preliminaries, and having bared the edges of the gap in the front, in hard, as well as in soft, I would now make the additional wounds with scalpel and chisel, as above recommended, thereby hoping to avoid a second operation by doing all at once, under the beneficial influence of chloroform.

Since the above was written, I have had an opportunity of putting these latter views into execution. A youth of eleven years of age, on whom I had operated soon after birth for wide hare-lip, was brought under my notice, with a fissure extending from the lip to the uvula. A year ago, I had advised delay of a proposed operation on the gap in the soft palate, which was very wide. Now, I thought I should venture to test the proposal in an unusually severe case. Under chloroform, the usual incisions for dividing the levator palati on each side were first made; then the edges of the gap were pared as far forwards as to within half an inch of the front; next the scalpel and chisel were used in the way described; and, finally, six stitches were introduced—two through the hard part, without piercing the tissue; and four through the soft parts, in the usual way.

This diagram (Fig. 6) in part illustrates the proceeding. The little dot on each margin shows where the soft palate and bone join, and the line at each side indicates where the scalpel was applied, and, it may be supposed, before the chisel was introduced to prize the parts towards the mid-line. Unfortunately, the first two stitches slid together, so that practically they acted only as a single one. The effect was, however, highly satisfactory. There was no tension in the front of the gap in the soft palate. The approximation of the

bones took off all drag, such as is common under ordinary circumstances; and the result has been equal to my anticipations. The whole of the gap in the soft palate has united, and even a considerable part in the hard. With another operation in front—a repetition of this new process—I am convinced that the gap may be closed up to the alveolar ridge. I have no doubt whatever that, in instances where there is only a slight fissure in the hard palate, the surgeon, by use of the chisel, will thus be enabled to close it, and that in the soft with a certainty hitherto very questionable.

Fig. 6.



In my anatomical knowledge of such malformations, there is one condition which I fancy might prevent these views from being carried into effect. In the generality of severe cleft in the hard roof, the lower and back part of the vomer is incomplete; but in some cases the vomer is entire, although perhaps swayed to one side; and it remains attached by its lower margin to one side of the hard palate throughout. Here would be a difficulty which might puzzle; for, although the chisel might permit the approximation of the edges, it would be difficult to introduce stitches; but even here there would be a redeeming quality in the new process, for pushing the parts to the mid-line might lay them so together that, though union should not occur, they would lie so close that a fissure might elude ordinary observation. In one of the cases above recorded, I have found that entire union in the mid-line has really not taken place. The margins are, however, in such close approximation, that the want of union can be ascertained only by slipping the point of a probe through the suspicious-looking part.

With these remarks, I leave the subject for the present, under conviction that I have touched new ground in a most complicated field of anatomy and surgery, and in sincere hope that I have added to, if not completed, the power of surgery in such cases of malformation.

—

On a Case of Varix of the Vena Dorsalis Penis treated by Injection of Chloral.

Dr. Parona describes, in the *Giornale Italiano delle Malattie Veneree e della Pelle*, the case of a man, aged thirty, who had practised masturbation to a moderate extent from the age of eighteen, and could not obtain an erection the first time he attempted coitus. After this failure, he resumed his vicious habit; but at the end of three years he one night made a fresh attempt at connection, and contracted a gonorrhœa which lasted four or five months.

Dr. Parona, on being consulted, found that erection was incomplete, in consequence of a want of turgescence of the glans, and that the dorsal vein was varicose. Rightly attributing the defective function to disordered circulation, he injected chloral into the vein. Two days later, erection was complete but rather painful; bromide of potassium was given internally. Erection continued to be troublesome for some time; and then all inconvenience ceased.—*London Med. Record*, May 27, 1874.

—

On Lymph-Scrotum.

Dr. Manson (*Customs Medical Report—China*, Oct. 1872 to March, 1873) describes, under the name of lymph-scrotum, a peculiar disease of the scrotum, of which three cases have been described in a previous number of the same reports. Five cases are referred to here, and another had been in hospital, but no notes were taken. The notes of these two cases are given *in extenso*, translated from the Chinese clerk's notes, and at the end the leading facts of

the whole eight cases are tabulated. The patients were men practising various kinds of labour, and of ages varying from nineteen to seventy-two. Six of them were known to have been liable to ague, and in the other two cases the matter was not inquired into; the duration of the disease had in no case exceeded two years. The characteristic of the disease was the formation of vesicles in the skin of the scrotum (only two in one case, in another innumerable), from which exuded an albuminous fluid, variously described as clear and straw coloured, or milky, and sometimes blood-tinged, spontaneously coagulable, and containing, under the microscope, two kinds of corpuscles, in most respects like those of the blood, The two kinds appeared to be in about equal proportions. Those similar to the red corpuscles differed from those of the blood in not exhibiting any disposition to accumulate in rouleaux, but rolled across the field one independent of the other. Thus they exhibited many different shapes according as the surface or the edge of the disk was presented to the eye. A sketch of the two kinds of corpuscles is given.

In all the cases noted there was enlargement without suppuration of the inguinal glands. In six cases there had been abscess of the scrotum, which, however, was absent in two of the cases, though in one of these latter there had been swelled testicle. The son of one of the patients suffered from elephantiasis of the leg. As far as can be judged from the description, the skin was natural except in the part where the vesicles were formed, and in the immediate neighbourhood, where it was swollen and thick.

A singular omission in the paper is that nothing is given beyond this description of the local changes. There is no mention of the effect (if any) on the general health and condition, nothing as to the etiology, nothing as to the treatment of the disease. The conclusion must be that the disease produces no effect on the general condition, and that no efficient treatment is known; yet it would have been more satisfactory to have had this clearly stated.

In commenting on this case, Mr. T. Holmes calls attention to the case related at the Clinical Society some years since, of a boy, the son of a well-known physician in London, who suffers from occasional profuse discharge of lymph from the scrotum. In this case there is hypertrophy of one lower extremity, and at times much interference with the general health. Several other cases of varicose lymphatics have been recorded, but we were not aware that the affection prevailed anywhere endemically.—*London Med. Record*, Jan. 21, 1874.

—

Acute Periostitis and Subsequent Removal of the Whole Clavicle.

The rarity of operations for removal of the whole clavicle makes it worth while to briefly report the following case (*Gaz. des Hôpitaux*, No. 59, 1873). A girl of 18, delicate, had a severe pain over the right clavicle, for which she was advised to rub it with opodeldoc. Swelling and redness followed, for which a blister was ordered. Shivering followed, and a large abscess was formed, which was opened on the eleventh day of the disease. The clavicle was found bare, and so far movable that pressure upon it made pus escape from the wound. A secondary abscess formed in the thigh, and the patient's general health began to give way. On the seventeenth day of the disease, M. Leon le Fort put the patient under chloroform, and with great ease, and with the loss of hardly a drop of blood, removed the whole clavicle except the sternal epiphysis. It was held only by some fibres of the coraco-clavicular ligaments, which were easily divided by the scissors. The bone was smooth, and white as ivory. M. le Fort has only been able to discover sixteen similar cases in the records of surgery—by Pelletan and Mazzoni, for necrosis; by Asson, for syphilitic necrosis, with spontaneous fracture; by Roux, Meyer, Wurtzer, Biagini, Kunst, and Wedderburn, for chronic necrosis. Warren and Esmarch have done it for osteo-sarcomatous tumours, Chaumet for a disease which he calls fungous medullary exostosis. Another is reported, with no details, in the *Froriep Magazin*. Moreau's one was only the removal of a sequestrum, and Vinson's resembled the author's. This list is certainly imperfect, Mott's famous case being omitted.—*Edin. Med. and Surg. Journ.*, Dec. 1873.

The Whole Upper Extremity and Scapula Wrenched off; Recovery.

This case is related by Dr. Katholitzky, in the *Allg. Wiener Med. Zeit.* (November 11, 1873). The patient, a bricklayer thirty-seven years of age, was engaged, on May 27, 1871, at Rossitz, Moravia, in walling up a shaft forty-seven yards in depth. He was in the act of moving on a trough with the left hand whilst supporting himself against part of the scaffolding with the right hand, when the bucket, rapidly raised by steam up the shaft to remove the water, caught the poor man, and carried him about one yard to the next cross piece of scaffolding. Here the clothes covering the right clavicular region stopped the ascent, and the patient was thrown to the opposite side of the stage. When his fellow-workmen picked him up they found that the whole of the upper extremity was wanting, and had fallen into the water at the bottom of the shaft. He was immediately taken to the hospital connected with the mining works, and Dr. Katholitzky saw him an hour and a half afterwards. He observed that the whole upper extremity, along with the shoulder-blade, had been wrenched off, and that the hemorrhage was very inconsiderable. The wound was about ten inches long and eight inches wide, and extended downwards from the acromial end of the clavicle along the right side of the chest. The clavicle was projecting, but covered by integument, and no bleeding or pulsating vessel was discovered after the wounds had been carefully cleansed with warm water. The action of the heart was extremely weak, with eighty pulsations, and the right subclavian artery could hardly be felt. A cavity in the form of a sac was noticed where formerly the scapula had been situated, and the spinous processes of the dorsal vertebræ could easily be seen and felt. A flap of skin the size of a man's hand was hanging down and inclining forwards. Towards the upper part of the wound lay shreds of muscles and nerves; and here, where the brachial plexus had been so rudely divided, the least touch gave exquisite pain, and the patient stated that the whole wound burned like fire.

As the subclavian pulsated but very feebly, and there was no trace of hemorrhage above the clavicle, and as no arterial ends could be found, the surgeon brought the above-mentioned shreds under the clavicle, and endeavoured to diminish the size of the wound by bringing up the margins and keeping them *in situ* by means of steel clamps. The wound now presented a triangular uncovered surface about the size of a man's hand of small size. Compresses were carefully placed under the clavicle; they were secured by a bandage resting on the sound shoulder, and lint wet with iced water was placed on the open wound. The patient recovered.—*Lancet*, Jan. 3, 1874.

—

Popliteal Aneurism treated by the Application of Ice; Recovery.

A soldier named Manoel F. dos Santos, aged 39, was admitted on October 1st, 1873, into the military hospital in Bahia, under the care of Dr. Constantin Machado. He had in the left popliteal space a swelling of the size of a hen's egg, which presented all the characters of aneurism; it was very painful, and prevented him from walking. The skin over the aneurism was hot, shining, and smooth; the patient said that he had a feeling of heat and tension in the part. It was intended to employ digital pressure, but in the first place to apply ice over the aneurism as a palliative. Accordingly, a bladder of ice was applied constantly for three days, being changed whenever the temperature approached that of the body. At the end of this time, the tumour was found to be solidified, the *bruit* which was at first hard had disappeared, and the swelling had much diminished. The pain, however, remained until the coagulum was absorbed. No other treatment was adopted, and the patient left the hospital on November 28th perfectly cured.—*British Med. Journ.*, April 11, 1874, from *Gazeta Medica da Bahia*, December 31, 1873.

—

On Pseudarthrosis of the Femur cured by Irritant Injections.

M. Bourguet d'Aix communicates to the Société de Chirurgie (*L'Union Médicale*, Feb. 10) under this title the account of a case similar to one which

he reported in 1863. A man broke the neck of his thigh-bone on Oct. 28, 1872; on April 1, 1873, it was still unconnected. M. Bourguet then injected at the level of the superior fragment ten minims of a solution of ammonia (one part in three). On April 27 he injected twenty minims at the level of the superior fragment; on April 30 he injected twenty drops between the two fragments; on May 8 he injected twenty drops of a solution of equal parts of ammonia and water. The limb was fixed on a splint. On May 10, he injected twenty drops of an iodized solution; and repeated it on June 2, 4, and 14, when a silicated bandage was applied to the leg, thigh, and pelvis. Phosphate of iron was given internally. On September 1 the patient was able to walk; on September 17 the fragments were solidly united, the callus was voluminous, there was shortening to the extent of 2½ centimetres; another bandage was applied, leaving the knee and ankle free. On November 27 the cure was complete.—*London Med. Record*, April 8, 1874.

—

Luxation of Tendon of Tibialis Posticus.

The subject of luxation of tendons was discussed at a late meeting of the *Académie de Médecine* (Paris). Luxations of the tendons of the *peronei* muscles have been often described, amongst others by Monteggia, Robert, Demarquay, Jarjavay, and Legouest. M. Martins described at this meeting the first recorded instance of a luxation of the tendon of the *tibialis posticus*. The accident occurred while the subject of it was in the act of descending from a balloon ascent; the balloon car struck the ground violently, and he was thrown forcibly upon his back, at the same time making a violent involuntary extension of the injured leg. The phenomena of the injury were, a considerable and moderately tender swelling along the inner border of the tibia, from its lower third to just above the malleolus; the movements of the articulation were free, but the attitude of standing erect and walking were not performed without pain. The displaced tendon was easily replaced, and maintained without trouble. Some months elapsed, however, before the patient could walk without lameness. —*Irish Hosp. Gazette*, March 2, 1874, from *Gaz. Méd. de Paris*, Jan. 1872.

Midwifery and Gynæcology.

Anomalous Face Presentations.

Dr. Weber (*Berl. Klin. Wochenschr.*, 29, 1872) communicated the particulars of five such cases, in which the face had entered the small pelvis, and remained with the forehead directed towards the symphysis. The child was always very large, and in every case the membranes had ruptured prematurely. It appeared probable that a forehead or vertex presentation had first existed, and that labour was delayed by the great extent of the presenting part, and that the change in the position took place after the rupture of the membranes; so that rupture of the membranes may be looked upon as the determining cause of such anomalous face presentation. As to the treatment, Dr. Weber had come to the conclusion that turning should be performed as easily as possible, and that no time should be lost in using the forceps, nor any attempts made to better the position, as they give no favourable results.—*Obstet. Journ. of Great Britain*, Jan. 1874.

—

Cæsarean Section.

Dr. O. Ungarelli, of Minerbio (*Bullettino delle Scienze Mediche*, and *Gazette delle Cliniche*, No. 48, 1873), relates a case in which he performed the Cæsarean operation, or gastro-hysterotomy, by what he describes as a new method,

after having made an accurate diagnosis of the position of the fœtus. The patient was a woman, aged twenty-seven, with deformed spine and pelvis, who had been in labour forty-four hours when Dr. Ungarelli was called to her in consultation by Dr. Querzé, whose patient she was. He thus describes the operation:—

In ordinary cases of labour, when it is necessary to perform versions, besides examining the parts through which the fœtus has to pass, I always examine the uterus from the exterior, so as to find on what side the feet lie and to be able to introduce the hand in that direction; and in many cases I have found advantage from this, after having introduced the hand into the uterus. I determined to make an examination of the kind on this patient before proceeding to perform the Cæsarean operation, in the full confidence that, by making the incision where the feet are felt, it might be limited as much as possible. Preparations having been quickly made, and the patient placed on a miserable little bed, the only one which her dwelling offered, I made with a bistoury an incision 9 centimetres (3½ inches) in length over the left colic region, where the feet were felt, dividing in succession the skin and the muscles as far as the peritoneum. Two arterial twigs, branches of the epigastric, spouted blood, and were at once tied. I then divided the peritoneum on a director. A loop of intestine, partly covered by omentum, presented itself at the upper angle of the incision, and was replaced and held back by my assistant, so as to enable me to make an incision in the uterus of the same extent as that in the integument. All this was done as quickly as possible; and I had scarcely cut through the uterus when a foot escaped and immediately afterwards another; they were both seized, and the entire child was withdrawn alive by my assistant, while my attention was directed to preventing the uterine fluids from escaping into the cavity of the abdomen. The placenta was easily removed. The wound in the abdominal wall was united by suture, and plaster and a compress were applied. The woman recovered.—*London Medical Record*, Feb. 25, 1874.

—

On a Case of Cæsarean Section after Death: Removal of a Living Child.

Dr. Rota, of Chiari, describes in the *Gazzetta Medica Italiana-Lombardia* for October 16, 1873, the case of a woman aged forty, who, at the beginning of the ninth month of her fourth pregnancy, had œdema of the eyelids, difficult breathing, dropsy of the pudenda and lower extremities, and scanty urine. The symptoms having become urgent, an attempt was made to induce premature labour by the introduction of sponge-tents, but without success. Two days later, having risen to the standing position on account of the severity of the dyspnœa, she fell dead.

The Cæsarean operation was performed by Dr. Rota, assisted by Dr. Pasolari, a few minutes after death: the child, a male, did not at once breathe, but was revived by means of a warm bath, sprinkling with cold water, and artificial respiration after Silvester's method.—*London Med. Record*, Feb. 4, 1874.

—

Use of Ether during Labour.

At a late meeting of the Philadelphia Obstetrical Society, Dr. Albert H. Smith remarked (*Amer. Journ. of Obstet.*, May, 1874), with regard to the action of ether, that many cases present a condition of spasmodic contraction of the neck of the uterus, in which anæsthetics have an admirable effect. In these cases labour goes on with violent contractions, and the os uteri will not relax when the head presses upon it. Here ether will be of service by its property of inducing relaxation.

In other cases he thought that ether retards labour by enfeebling the power of the patient. In multiparæ, where the os is in a yielding condition, there is no reason to expect delay from that source; hence ether retards labour by impairing the voluntary contractions which are so useful. The patient cannot bear down, because consciousness is impaired and volition is absent. If the

patient insists, we may use ether as a placebo, only upon condition that she will bear down.

The prolonged use of ether will impair the vitality of the fœtus. He had rarely seen a case in which the use of ether was prolonged, in which the child did not require some effort to revive it.

Dr. Goodell remarked that ether is of value in the first stage of labour in those cases in which the edge of the os is like a sharp knife, and so painful that the patient will shrink from the touch, and shriek out at every pain. In the second stage ether retards labour, and should not, as a rule, be given, except in such cases as an occipito-posterior presentation, where the pain is often intense and the woman unmanageable. He thought at one time that ether was a relaxer of the perineum. He does not think so now. The woman's pains are its best relaxers.

There is a liability to post-partum hemorrhage after the use of anæsthetics. The British journals are full of bad and even fatal cases of post-partum hemorrhage, due, he thought, to the almost universal use in that country of anæsthetics in labour. Severe flooding was in this country an unusual occurrence; death from it, extremely rare.

—

Puerperal Convalescence.

Dr. Wm. Goodell, Clinical Professor of Diseases of Women in the University of Pennsylvania, contributes to the *Medical and Surgical Reporter* (Feb. 21, 1874) some special hints on puerperal convalescence, as follows :—

Let the physician see to it that his patient has a good getting up, as well from a miscarriage as from a natural labour. Lactation should be encouraged, and from the first day the diet should be generous. The canonical purge on the third day should be dispensed with; it weakens the body needlessly, and tends to promote the absorption of septic matter. Premature exertion must not be allowed. On the other hand, a recumbent posture ought not to be too rigorously enjoined. I feel persuaded that this tradition of the lying-in chamber does more harm than good, for nothing so relaxes muscular fibre as a confinement in bed. In my experience, women feel stronger on the fifth day after labour than they do on the ninth or fourteenth, if kept in bed. Among the ancient Greeks, those models of physical strength and beauty, the women took a bath on the fifth day. That this was also a custom of the Romans is evident from a play of Plantus, entitled "Truculentus, or the Churl." Since labour is in general a strictly physiological process, there can be no sound reason why a woman should not sit up in bed, or even slip into a chair, whenever she feels so disposed. These are not idle phrases, but the conclusions of a long and well-sifted experience. Such movements excite the womb to contraction and empty it and the vagina of putrid lochia which may be incarcerated by a clot or by the swollen condition of the soft parts. When, therefore, the lochia are offensive, these upright positions should be insisted upon, as being, in fact, better deodorants than any detergent vaginal injections. By equalizing the circulation and by increasing its force, they also tend to lessen the passive congestion of the womb as a whole, the engorgement of the placental site, and especially that blood-stasis kept up by the dorsal decubitus in its now thickened posterior wall, which is, in my opinion, a very common cause of posterior displacements.

The prolonged use of the obstetric binder is another factor in the production of female complaints. The binder may be useful for the first four-and-twenty or forty-eight hours after labor; for it fills up the void left by the emptying of the womb; it gives a grateful feeling of support; it hinders the occurrence of a concealed hemorrhage, and presents a bar to the ingress of air into the uterine cavity. But when kept on simply for the purpose of preserving the shape, by paralyzing those abdominal muscles which it is intended to strengthen, it not only defeats the object so dear to the heart of every woman, but it weakens the retentive power of the abdomen. It also does harm by crowding the intestines upon the womb, and the womb down into the pelvic cavity. Again, by forcing backward upon the vena cava and upon the pelvic veins so hard a body as the

womb, making it, in fact, the pad of a tourniquet, it impedes the freedom of the circulation in that organ, and greatly impairs the process of involution. Pharaoh could have devised no surer way of overcoming the fruitful health of his Hebrew subjects, than by an edict enforcing the prolonged use of a tight obstetric binder.

The lochia must be watched. If, in the third week after delivery, they still linger on, the inference may safely be made either that the cervix is the seat of unhealed lacerations, or that the process of involution is interrupted; or that both conditions may coexist, for the former usually determines the latter. Astringent vaginal injections or suppositories will now prove to be important therapeutic agents. To this local treatment may be added a constitutional one of iron and quinia, the former according to previously given formulas, the latter in suitable doses, amounting in the twenty-four hours to from eight to twelve grains. Apart from its undisputed tonic properties, quinia firmly constringes uterine fibre, and, therefore, greatly aids the process of involution. Ergot and strychnia are also useful remedies to fall back on; wine or beer must not be forgotten. If, after the puerperal month, pains in the back, leucorrhœa, and other well-known symptoms indicate the presence of some uterine disorder, it is evident that involution has been retarded. The speculum must then be used, and the usual uterine applications made, beginning with the milder ones, for now, if ever, is the time by such means to treat the condition of subinvolution, or to cure other puerperal lesions. If a patient has previously suffered from uterine disease, she should, after delivery, be at once put on a treatment of ergot and quinia. By shortening the excursions of uterine fibres in their alternate contractions and relaxations, these medicines proportionately lessen the diastolic engorgement of the womb. I am not sure but Credé's method of placental delivery, by supra-pubic expression, acts in an analogous manner. It certainly empties the womb of all clots and squeezes it down to its minimum capacity. Such a patient also needs the timely aid of the forceps. For it prevents that laxness of uterine fibre following a long and weary labour, and hence provokes a more complete involution. But for that matter, no lying-in-woman should be allowed to linger on in the expulsive stage of labour, when her physician possesses the requisite skill to shorten it.

—

On Placenta Prævia, coupled with Fibroid of the Uterus.

Dr. Hecht (*Allgemeine Wiener Med. Zeitung*, 1873, No. 46) believes this to be the first published case. The patient was a primipara. Up to the eighth month of pregnancy she had been very well, when suddenly she began to lose blood; the hemorrhage continued for eight days, becoming every day worse. On examination *per vaginam*, there was found in the posterior *cul-de-sac* at the brim of the pelvis an immovable half globular solid tumour, filling up two-thirds of the inlet, and projecting downwards and backwards into the hollow of the sacrum. *Per rectum*, the relations of the tumour were readily made out. It grew from the posterior wall of the cervix and uterus, impinging on the canal. The child was alive; the head was high up, the os slightly dilated over it, and between the finger and the head was the soft placental mass. The hand, on account of the tumour, was with difficulty introduced and the child was turned, and after much trouble extracted. After delivery, the fibroid could be easily defined as growing from the lower portion of the cervix. The woman died within nine hours, from the effects of the great loss of blood. No *post-mortem* examination was allowed.—*London Medical Record*, April 15, 1874.

—

Solution of Ferri Chloridi for Post-partum Hemorrhage.

Dr. C. Holman reports (*Brit. Med. Journ.*, May 2, 1874) the following cases illustrating the use of the solution of chloride of iron (*perchloride*, Ph. Brit.) to arrest post-partum hemorrhage:—

Case I. Mrs. —— always had very large children. Her first was delivered by forceps, and delivery was followed by uterine inertia. It had always been

found necessary to remove the placenta by hand, in spite of the use of ergot before and after the birth of the child. In her fifth labour, the loss was large, in spite of the introduction of the hand into the uterus, of pressure, and cold applied inside and outside. No ice could be obtained. Solution of perchloride of iron was injected. There was no further loss. The recovery was as good as usual. She was up on the fourteenth day.

Case II. The same patient as Case I. In her sixth labour, the child was very large. The os uteri was felt to be cracked, and there was a good quantity of bright blood with the usual flooding. I injected the uterus with a solution of perchloride of iron, and placed a sponge soaked with the solution in the os. There was no further loss, and she made a good recovery.

Case III. The patient, in labour with her first child, but of stout habit, led a luxurious life, and had generally flabby muscular fibre. The labour was slow, marked by inertia; the slight contractions painless. The child was large. A very profuse gush of blood came with the placenta; and, in spite of *skilled pressure*, the blood poured away. The hand was introduced, but the loss was still great. She became nearly pulseless, and in thirty minutes was blind. I injected perchloride. No loss followed. There were no lochia at all for forty-eight hours; then the discharge was offensive. Phlegmasia dolens in the left leg appeared. Her convalescence was slow, but her recovery was complete. A clot had evidently sealed up the os uteri, and this ought to have been broken up by the fingers.

Case IV. Mrs. ——, in labour with her third child, had aways flooded. She had a very feeble heart. The uterus was greatly distended. After the removal of the placenta, a continuous profuse loss went on for half an hour, in spite of the hand in the uterus, pressure, cold, etc. I injected perchloride of iron. There was no further loss. She sank exhausted four hours after delivery. No special pain was complained of on the injection.

Case V. Mrs. ——, in labour with her first child, had passed a fibroid tumour by the anus. The pains were short and inefficient. The loss was great. Through the abdominal parietes, the uterus was felt large and boggy. The placenta was removed by the hand, and the hand was kept in the uterus. The posterior wall did not seem to contract. The loss went on. The impression produced on the system was rapid. I injected perchloride. No pain ensued. The uterus remained large. There was no further loss. She sank in three hours. At the post-mortem examination, the uterus was large. The sinuses were filled with coagula. The uterine tissue was tinged of a dark colour. The posterior wall of the uterus was crammed with fibroids; in fact, there was almost entire fibroid degeneration of the posterior wall. There were two subperitoneal pedunculated fibroids behind.

Case VI. Mrs. ——, had always flooded, and had been treated by ergot during labour; by pressure and ergot subsequently. Her ninth child was born after pains lasting three-quarters of an hour, and before my arrival. The uterus was distended, and loss was going on. The placenta was lying in the uterus. The uterus was now well cleared out, but the loss continued. The hand was therefore introduced again, and retained; and cold was applied externally. Still the loss went on, and there was rapid failure of power. I injected perchloride. The loss stopped. Stimulants were continued freely. She rallied in four hours. Vomiting came on, and moderate hemorrhage returned. The pulse failing, I introduced the hand, cleared out the few hard clots from the uterus, and injected solution of perchloride of iron. This was quite successful. She made a good recovery.

I have also had a case of a primipara with smart arterial loss from the cervix, in which I inserted a sponge steeped in perchloride of iron successfully.

In all these cases, I conducted the labour on the principles long since taught me at Guy's Hospital; that is supporting the uterus, in last stage especially; making the uterus throw off the placenta, by manual external pressure if possible; giving ergot in the third stage, if flooding be anticipated; watching the uterus by the hand until contraction is firm and continuous. Brandy was given freely in all the cases.

Treatment of Puerperal Convulsions.

Dr. T. Moore Madden read before the Dublin Obstetrical Society (*Irish Hosp. Gaz.*, June 1, 1874) an elaborate paper on the etiology, prevention, and treatment of puerperal convulsions.

The treatment of puerperal convulsions, Dr. Madden said, must be considered in reference to the state of the patient in each case. Preventive treatment, in relieving the kidneys (cupping over loins, diluents, mild diuretics, especially colchicum), purifying the blood (saline aperients and diaphoretics), and soothing nervous irritability (bromide of potassium and belladonna), was most important. Cold affusion, a remedy recommended by Valescus in 1482, was stated to be one of the most effectual means of shortening the paroxysms. Venesection was of undoubted efficacy, and chloroform, although perhaps overrated, of unquestionable value in some cases. Chloral, opium, belladonna, and veratrum viride, as therapeutic agents in puerperal convulsions, were passed in review; but, it was pointed out that, the primary object in every case should be to deliver the patient as speedily as is consistent with her safety and with that of the child; and in those rare cases in which delivery cannot be effected by ordinary means, Dr. Moore Madden mentioned incision of the os; only, however, as the *ultima spes*. The paper concluded with a detailed report of eight cases of puerperal convulsions, four of which recovered, and four died. In one of the latter, Dr. Madden had freely incised the os, and delivered the patient of a dead child.

In closing the debate which followed the reading of the paper, the President, Dr. Evory Kennedy, said that no matter how divergent the theories of the speakers might be as to the cause of the disease, he was gratified to find that there was unanimity as to the necessity of bleeding, a mode of treatment, as confirmed by experience, necessary to save human life. He, the President, in his lengthened experience, had never regretted having bled in a single case of convulsions. Chloroform he considered to be a valuable means for lessening irritability, and in allowing the treatment to be carried on at the same time. Dr. Madden's practice he considered sound, with the exception of using the knife. It might perhaps, however, be occasionally requisite. Caution should be observed in practising forced deliveries in convulsions, as being dangerous to the mother. He had noticed, and wished particularly to draw attention to the fact, that headache was almost invariably a preliminary sympton in pregnant women who were the subject of eclampsia. Cold aspersion was, in his opinion, valuable in lessening the violence of the fit and in postponing the attack.

—

Hydrate of Chloral in Puerperal Eclampsia.

Dr. Bourdon (*Lo Sperimentale, Fascicolo nono*, 1873), having a case of eclampsia in a woman aged 21 years, determined to try the effects of hydrate of chloral. The patient had arrived at the termination of her first pregnancy, and for the last fifteen days had suffered from œdema of her lower limbs and eyelids, cephalalgia, somnolence, and a large quantity of albumen in the urine, when she suddenly fell into a violent convulsion, which lasted for ten minutes. As soon as the attack passed off, M. Bourdon administered an injection per anum of 60 grains of hydrate of chloral; this induced immediate sleep. On the following morning, to prevent any recurrence of the attack, two more injections were prepared with 60 grains of chloral in each. The first was administered at 10 A. M., notwithstanding that delivery had commenced. Two hours after a second was given, and at 3 P. M. delivery was completed without consciousness on the part of the patient. In the evening, about 8 P. M., a fresh convulsion occurred, for which a draught of 60 grains of chloral was again given. She fell into a sound sleep, and the subsequent recovery took place without anything remarkable.—*Practitioner*, Feb. 1874.

New Method of Tying the Umbilical Cord with a view to prevent possible Hemorrhage.

Dr. Dickson, at a late meeting of the Obstetrical Society of Edinburgh (*Edin. Med. and Surg. Journ.*, March, 1874), described the following method.

"Having had three or four cases of bleeding from the umbilical cord, notwithstanding the application of the usual two ligatures, and as the medical attendant may be blamed quite undeservedly in such cases, I some time ago devised a plan which promises to prevent any such annoyance in future. A thick gelatinous cord is that which is most liable to bleed. Although tied very tightly by the 'clove hitch' or otherwise, it shrinks away from the ligature; and the moment its diameter becomes less than that of the ligature, the vessels become pervious, and bleeding may ensue—I say *may*, because in the great majority of such cases it does not. With a view to prevent it in all instances, I began in September last to use what is called 'flat silk elastic,' which is a ribbon about a sixth of an inch broad, made of about eight threads of India-rubber, interwoven with silk. One yard of it will tie about a dozen ligatures, one being sufficient in each case. As it is very strong, it can be tied tightly on the cord, which it follows as it shrinks, so that no hemorrhage can possibly happen."

—

On the Combination of Opium with Chloral-Hydrate in the Treatment of threatened Abortion.

In the *Bulletin de Thérapeutique*, vol. lxxxiv., is summarized a case by M. Martineau, in which uterine contractions, occurring in a pregnant woman (seven months), treated successfully by opium, were immediately arrested by administration of chloral in the dose of 1 gramme night and morning. M. Besnier (*Union Médicale, Gazette des Hôpitaux*, No. 122) relates, in connection with this case, that of a primipara pregnant six months, and urgently threatened with abortion. Opium in high doses and under all forms not having produced any good effect, Mr. Besnier had recourse to chloral-hydrate in enema (2 grammes). The effect was rapid and very satisfactory, and each time the pains reappeared they were set at rest by the repetition of the enema; but, as they did not finally disappear, M. Besnier, by advice of M. Tarnier, returned to the opiate treatment, which had to be continued for two days; it had no bad effect whatever, and the patient was saved from her threatened death. Investigating the mode of action of the chloral in these circumstances, M. Besnier concludes (with MM. Bourdon and Martineau), that chloral exercises different effects on the uterus, according as it is administered during accouchement or after threatening of abortion. In the first case it augments, and in the second it diminishes, and even suppresses the contractions. According to Besnier, the myosthenic or amyosthenic effects produced must severally be referred to the different conditions of the uterus at the time of administration of the chloral-hydrate. In accouchement there is to be considered the excitation of cervix uteri by the head of the infant, which keeps up its contractions; these are even augmented as the consequence of the rest given to the womb by the cessation of pain, due to the administration of chloral. In threatened abortion, excitation of the cervix is absent: pain plays the chief part. Thus chloral suppresses the principal cause of the contractions. The whole importance of the drug lies in the analgesia which it produces. The action of the opium must also be taken into account in the case above cited. M. Besnier concludes that chloral is an excellent auxiliary to opium, when the latter proves inefficacious.—*London Med. Record*, March 18, 1873.

—

Phytolacca Decandra in Mastitis.

Dr. T. Curtis Smith advocates (*Detroit Rev. of Med. and Pharm.*, April 1874) the use of phytolacca decandra in mammary inflammations, and reports the following two cases in which it was successfully used:—

"Mrs. O., aged 39, nervo-bilious habit, naturally of fair constitution. but now greatly broken down by frequent parturition, and the hard labour incident to the care of a large family. When confined in January, 1872, the labour was normal, but was followed by several serious complications, as gastralgia, mastitis, and phlegmasia dolens, from which it required months of the most careful treatment and nursing to effect a recovery to even moderate health.

"The mastitis in that instance was probably largely due to her anæmic condition, and her inability to have the child draw the milk off regularly, and also in part to obstinate chaps in both nipples. Abscesses formed in both mammary glands, opening in several places in each one.

"She was again confined in December, 1873, and again was likely to be beset with a series of abscesses, as before. After several days of fruitless efforts to abate the threatening suppurative process, I placed her on fifteen drop doses of a saturated tincture of the root of phytolacca decandra, every four hours, and applied the same freely over the glands; all other treatment for this purpose being withdrawn Contrary to my expectations, the inflammation began to abate in twenty-four hours, and in three days the glands were soft throughout, and the lacteal secretion completely dried up. The latter point I did not expect to attain with this agent, but, as the milk was not healthy for the child, it was better so than otherwise. She is still very feeble, anæmic, and a great sufferer from a most obstinate neuralgia. It will be readily seen that everything was favourable for the development of mastitis, which I have learned had occurred after several of her previous confinements.

"The second case was a stout healthy young woman, in whom premature labour had occurred, the fœtus being dead. From carelessness on the part of her nurse, the milk was not drawn off sufficiently, and an abscess strongly threatened development. The other secretions being in good condition, I simply ordered the phytolacca as in the former case. Upon seeing her in thirty hours after this treatment was begun, there was not the slightest nodule to be found in either mammary gland. The milk in this case did not dry up rapidly after its use, but there was an evident rapid diminution in the amount secreted.

"I think abscess could readily have been prevented in this last case by other means, but I doubt whether it could have been accomplished any more quickly and with so little trouble. Many cases have been reported where the agent has been equally successful, and it has given excellent results in the hands of one of my fellow practitioners of this place, who places great confidence in it for this purpose."

—

Senile Galactorrhœa.

Dr. Luigi Casa relates two cases in the *Gazzetta della Cliniche* for February 17. The first case was that of a woman, G. M., aged sixty-five, in whom the galactorrhœa appeared without any previous indication of disease. Her parents had been healthy, and had lived to a great age, and she had not had any disease of importance. She had had seven healthy confinements, and ceased to menstruate at the age of fifty-five, for three or four years after which she felt quite well. When she was about sixty years old the breasts began to swell; this continued for some months, and, as she said, was greater, and was attended with increased pain, at the full moon. There was no other drainage. The flow of milk then ceased for about two years, until the beginning of 1868, when Dr. Casa was called to see G. M. On examination, he found the breasts much enlarged, measuring about ten inches from the ribs to the point of the nipple. On gentle pressure a fluid escaped, which presented no difference in appearance from milk. Notwithstanding her age, she felt considerable venereal excitement; she had also pruritus of the genitals, which, however, was not very troublesome. She had lost her appetite, and was always constipated. Dr. Casa could not, on careful examination, find any disease of the external or of the internal genital organs. He gave her Bonjean's ergotin, and in a few months the lacteal discharge and all signs of mammary engorgement disappeared. She died in the same year, of typhoid fever following double pleuro-pneumonia.

The second case was that of a woman, aged about fifty, in whom the cata-

menia had ceased for some years, and who died of uterine cancer about two years ago. Her mother had died of the same disease at a very early age. Early in 1871, the woman, while consulting Dr. Casa on account of the uterine disease, showed him her breasts; they were enlarged, and in the course of a few weeks there was a discharge of a fluid presenting the characters of milk, but rather denser, and of a greenish colour.—*London Med. Record*, April 29, 1874.

Dr. Theo. Dargan records (*Charleston Med. Journ.*, April, 1874) the case of a woman aged 60 years, at the time of renewed lactation the mother of two children born at an interval of 22 years. Her mammæ were shrivelled and dried up apparently for 20 years, and her last pregnancy did not cause any enlargement of them. Ten years after the birth of her last child her step-daughter died, leaving a four months' old infant. As the child was fretful she put it to her dried-up breasts in order to quiet it. To her surprise, in the course of three weeks her breasts began to swell and yielded an abundance of milk, more than enough for one child. It continued until the child was weaned.

—

Conditions which give rise to Dysmenorrhœa.

Dr. Squarey, Assistant Physician to the Hospital for Women, enumerates (*Lancet*, Nov. 8, 1873) the following as the most frequent conditions which give rise to that very common and often intractable disease, dysmenorrhœa:

1st. All inflammatory conditions of either the uterus or of the ovaries.

2d. That in the uterus, and perhaps in the Fallopian tubes as well (though of the latter very little is known), any conditions interfering with the patency of the canal, and so causing an obstruction to the flow of the menstrual discharge, will also cause this symptom.

The inflammatory conditions which may be the cause of dysmenorrhœa are: Of the ovaries: acute and chronic ovaritis. Of the uterus, acute and chronic parenchymatous inflammation of the uterus and Fallopian tubes; acute and chronic catarrh of the uterine mucous membrane.

Under the second heading those conditions causing an obstruction to the flow of the discharge may be classed.

(*a*) All congenital strictures of the cervical canal situated either at the internal or external os, and associated or not with the condition known as "infantile uterus."

(*b*) An elongated condition of the vaginal part of the cervix, often associated with flexion of the canal about its middle—conical cervix.

(*c*) Flexions of the uterus causing constriction at the point of flexion.

(*d*) Fibroid growths in the uterine walls so situated as to compress or distort the cervical canal.

(*e*) Intra-uterine polypi, which may plug the orifice of the cervical canal.

And various other conditions; but these are the chief.

But besides the cases which may be included under either the inflammatory or the obstructive forms, there is a certain number in which the pain is extremely severe, and to which, from the impossibility of discovering any other cause, we apply the term "neuralgia." In these the disease is most likely constitutional rather than local.

—

Congenital Absence of Vagina; Operation.

Prof. Dolbeau relates, in the *Bull. Gén. de Thérapeutique* for February 15, 1874, a case of congenital absence of the vagina occurring in a girl of twelve who came under his care in the Hôtel-Dieu in 1866. Examination showed the external organs apparently normal, the uterus in position, but no connecting canal. As the child had been suffering for some weeks previous from acute abdominal pains occurring at intervals, an operation was decided upon and was successfully carried out, whereby an artificial vagina was created. At the completion of the operation some dark clots were evacuated from a sort of pouch around the neck of the uterus. By the introduction of the fingers every other day, and later by the use of a metallic bougie when it was found there

was danger of its becoming sealed, the canal was kept patulous. Subsequently, this was abandoned, menstruation became regularly established, and six years later the girl was married. Dr. Dolbeau some time afterwards delivered her of a seven months' child, born dead, but of quite large size. The delivery was easily accomplished, excepting that a cicatricial ring, which had to be divided, was found in the upper third of the vagina. The woman's health remained good up to the date of the report.

Dr. Dolbeau concludes that the artificial vagina created in the pre-rectal cellular tissue became capable of assuming the characters of a mucous cylinder, that coitus was easy, that fecundation was the result, and, finally, that accouchement presented no serious difficulties.—*Phila. Med. Times*, April 11, 1874.

—

On Extirpation of the Inverted Uterus.

Prof. Martini narrates (*Il Morgagni*, xiv., 8, 9) a case in which he removed a uterus which had been inverted for three months, by means of an écraseur. The operation was performed in fifteen minutes, and very little blood was lost. Peritonitis ensued, lasting fourteen days, but the patient eventually made a good recovery. The parts removed consisted of the fundus, body, and neck of the uterus, except the vaginal portion.—*Brit. and For. Medico-Chir. Review*, April, 1874.

—

Alteration in the Weight of Mature Newborn Children.

Dr. Kezmarozky (*Archiv f. Gyn.*, Band v. Theil iii.) made, during the years 1871–72, two series of observations upon the alteration in the weight of newborn children. In every case the weight of the child was ascertained directly after birth. The children were arranged in two sets: those in the first were weighed once every day at the same hour; those in the second twice daily, in the morning between eight and nine o'clock, in the evening between six and seven. No child was included in either series which was not perfectly mature, healthy, and suckled by a healthy mother. The children were weighed undressed in an accurate decimal scale. In the first series (those weighed once a day) there were 41 children; in the second series there were 32 children. The total weight of the 73 children was 243082.5 grm. (536 lbs.); one child weighed 3329 grm. (7⅓ lbs.). The total length was 3654.95 cm. (120⅝ ft.); the length of one child 19¾ in. Of the 73 children, 34 were boys and 39 girls. The total weight of the boys was 115017.5 grm. (253¾ lbs.); one boy weighed 3382.8 grm. (7½ lbs.). The total weight of the girls was 128065 grm. (282⅔ lbs.); one girl weighed 3283.7 grm. (7⅛ lbs.). The average length of a boy was 50.298 cm. (19.96 in.); of a girl 49.866 cm. (19.8 in.).

He gives the following conclusions as the result of his observations:—

1. All children lose in weight the first few days after birth.

2. The loss takes place in the first few hours after birth, but then for a time the weight may remain the same, if an abundant supply of food be given before the intestines and bladder have been emptied; exceptionally even there may be an increase of weight, which, however, does not last beyond the sixth hour of life.

3. The increase in the weight begins as a rule on the second or third day.

4. The loss is more sudden than the gain, so that up till the seventh day the gain has been scarcely more than half the previous loss.

5. The beginning of the increase of weight has no connection with the separation of the stump of the umbilical cord.

6. Boys begin to increase in weight on the average earlier than girls, they probably lose slightly less, and show a greater gain than the latter; also a larger number of boys reach their original weight in the same period of time.

7. The growth is more marked in children of pluripara than in those of primipara.—*Obstet. Journ. of Great Britain*, March, 1874.

Medical Jurisprudence and Toxicology.

Anæsthetization during Sleep.

In reply to the oft-asked question, "Can a person be anæsthetized during sleep?" Dr. W. R. Cluness reports (*Pacific Med. and Surg. Journ.*, June, 1874) two cases of successful chloroformization during sleep.

The first case was that of a girl aged eight years, in whom, as a sequel to acute otitis media, the mastoid cells of one side became inflamed. Dr. E. M. Curtis deemed it expedient to operate for the evacuation of the pus, and met me the following morning for this purpose. On our arrival we learned that our patient had slept but little during the night, but was then sleeping sweetly. Chloroform was at once administered upon a four-by-six piece of surgeon's lint, held as near the child's mouth as possible without coming in actual contact. Not the slightest effort was made by the child to avoid the inhalation of the anæsthetic, and in a few moments she was well under its influence, and the operation was performed and the wound dressed before she had fully gained consciousness. On making my evening visit, I was informed that my patient was not aware that she had undergone a severe surgical operation.

My second case occurred in the person of a little girl two and a half years old, brought to me for the purpose of having a supernumerary toe removed from each of its feet. While waiting for the arrival of Dr. Nelson, who assisted in the operation, the child fell asleep and was placed in the operating chair. As soon as the doctor arrived, chloroform was administered in the manner already detailed in the former case, and with equal success.

In the first case the condition of the child probably favoured the ready induction of anæsthesia, while in the second, age alone could be supposed to have influenced the result.

—

Poisoning by Berries of the Mistletoe; Recovery.

Mr. Joseph Dixon, of Whitehaven, reports (*British Med. Journ.*, Feb. 21, 1874) the following case: "On December 31 I was called to see a boy, aged 14, who had been suddenly seized with alarming symptoms. The messenger (uncle of the patient) stated that, an hour previously to my being sent for, the boy had left the house apparently quite well; but soon afterwards (about forty minutes) he was found lying in the street in a state of insensibility.

"I saw the boy at 9.45 P. M., and, from his general appearance, the first impression produced on my mind was that he was in a state of intoxication (alcoholic). He was then reclining on some chairs, with his head rested on his mother's breast. His countenance was suffused, the lips livid, the conjunctivæ injected, the pupils slightly dilated and fixed; the pulse was slow, full, and bounding; the temperature was normal; the breathing slow and stertorous. On pricking the soles of the feet, the limbs were quickly drawn up, showing there was no paralysis of the excito-motory functions. The odour of the breath gave no evidence of alcohol in any form whatever.

"Cold affusion was applied to the spine, by which means the patient was roused. He was now able to speak, but talked incoherently, had spectral illusions, and was inclined to be violent. At this stage he was induced to take an emetic, consisting of ten grains of sulphate of zinc, dissolved in four ounces of water, which he was able to swallow without difficulty. Vomiting speedily followed this administration. On the ejected matters being examined, eight partly masticated berries of the mistletoe were found. The emesis was encouraged, and diluents freely given.

"The condition of the conjunctivæ, together with the other symptoms, seemed to indicate considerable cerebral hyperæmia; I therefore ordered a sinapism to be applied to the nape of the neck. The patient was then put to bed. He continued in a state of excitement for two hours, after which he fell asleep. On the following morning (New Year's Day), at 10 o'clock, I again visited him, when he declared himself well. He said he ate the berries at about 8.30

on the previous night (December 31), soon after which he began to feel giddy, and from that time had no recollection of what had transpired. He assured me he had taken no spirit, wine, or beer, whatever. From the absence of any odour of spirit, either in the breath or vomited matters, and also from the fact of the presence of the berries in what was ejected, in addition to the boy stating that he commenced to be ill soon after eating the fruit of this plant, it seemed to me there can be no doubt as to the nature of the case."

—

Treatment of Poisoning by Chloral.

Dr. Albert Erlenmeyer discusses (*Der Praktische Arzt*, Band xiv. 11) the best method of treating patients who, either by inadvertence or idiosyncrasy, have taken too large a dose of chloral. The symptoms of the toxic influence of this substance are—collapse, diminution of the frequency of respiration, which has been observed to be reduced to four in a minute; injection of the conjunctiva, contraction of the pupil, blueness of the lips, dropping of the lower jaw and retracted tongue, whilst the pulse is in the early stage strong and slow, but subsequently becomes frequent and feeble, and ultimately scarcely perceptible. In more protracted cases, the face becomes pale, there is a tendency to fainting and vomiting, rigors, disturbance of voluntary movements, weakness of the lower limbs, and cramps in the calves of the legs. Erlenmeyer recommends, first, that the chloral should be removed from the stomach by emetics or the stomach-pump, or be much diluted with water, tea, or coffee; secondly, that artificial respiration should be maintained; and thirdly, that some antidote should be given. Erlenmeyer doubts the value of strychnia as recommended by Liebreich, since, although chloral is useful as an antidote to strychnia, it by no means follows that strychnia should be an antidote to chloral; for we find that morphia is an antidote to atropia poisoning, but atropia is not an antidote in poisoning by morphia. He thinks musk might be tried, but is inclined to place most reliance on liquor ammoniæ subcutaneously injected. As a last resource, transfusion may be adopted.—*Practitioner*, April, 1874.

Hygiene.

Sewer Traps.

Dr. Andrew Fergus, of Glasgow, in the *Edinburgh Medical Journal* for Feb. 1872, called attention to the erosion of lead drain-pipes by sewer-gas, and adduced proof to show that sewer-gas destroys unventilated pipes (*i. e.*, not open at the top) in from twelve to twenty years, and ventilated pipes in from twenty to thirty. In the number of the same journal for Feb. 1874, Dr. Fergus investigates the subject of trapping drains. To illustrate how little effect trapping has in keeping sewer-air out of house-drains, drawings are given of perforated house soil-pipes which were trapped before they entered the drains, and yet enough gas got through the trap to destroy the lead. The occasional forcing of the trap by increased tension in the sewer, Dr. Fergus considers insufficient to account for what we see in these pipes. His impression is, that the cause must be one of pretty constant action, and that the following is the process going on without much cessation, viz., the sewer air is absorbed by the water on the sewer-side of the trap, and discharged from the house end of it.

CONTENTS.

Anatomy and Physiology.

Anatomy of the Serous Membranes. By Dr. Klein 1
On the Normal Structure of the Thyroid Body. By P. A. Boechat 2
On the Relations of the Extensor Tendons to the Knee-Joint. By Dr. F. W. Lorinser . 2
Double Spleen and Kidneys. By Surgeon-Major G. W. Jameson 3
The Saccharifying Influence of Infant's Saliva. By Schiffer. 4
Death of Muscle and Apparent Death. By Dr. M. Rosenthal 4
On Urea in Vomit. By Dr. Juventin . . 5

Materia Medica and Therapeutics.

The Therapeutic Action of Bromide of Potassium. By Prof. Binz and Dr. Anstie . 5
Action of Bromide of Potassium on the Skin. By Dr. Neumann 6
Bromide of Calcium. By Guttmann and Eulenburg 6
On the Action of Iodide and Bromide of Mercury. By Prof. Bellini . . . 7
Camphorated Phenol. By Bufalini . . 8
On Iodoform as a Topical Remedy. By Dr. Courteaux 8
External Application of Chloral. By M. Martineau 9
Subcutaneous Injection of Carbolic Acid. By Dr. Hüter 9
On the Effect of Food on the Composition of the Bones. By H. Weiske and E. Wildt . 11
On the Influence of Alcohol on the Temperature of the Human Body. By Riegel . 11
The Direct Transfusion of Lamb's Blood. By Dr. Oscar Hasse 11
On Solutions of Morphia for Hypodermic Injection. By Mr. C. T. Vachell . . . 12

Medicine.

On a Rare Kind of Leucæmia in Childhood. By Dr. F. Gallasch 13
Rabies Mephitica. By Rev. Horace C. Hovey 13
Infection of Smallpox. By Dr. Zuelzer . 14
Embolism as a Cause of Aneurism. By Dr. Ponfick 14
The Pathology of General Paralysis. By Prof. Ludwig Meyer 15
Temporary Paralysis in Children and Adults. By Dr. Anton Frey 16
The Hereditary Transmission of Progressive Muscular Atrophy. By Dr. Hermann Eichhorst 17
On Saturnine Epilepsy with Psychic Disturbance. By Dr. Leidesdorf 18
On the Diagnosis of Hystero-Epilepsy from True Epilepsy. By M. Charcot . . . 20
Epidemic Goitre. By Dr. Michaud . . 21
On Rheumatic Paralysis of the Larynx. By Prof. De Renzi 22
Pulmonary Hemorrhage due to Injury of the Encephalon. By Dr. Baréty . . . 22
Rupture of the Right Auricle of the Heart from Sudden Compression of the Thorax. By Dr. Robert Amory 22
Treatment of Typhoid Fever by Fatty Inunction. By Dr. Löwinson 23
Rest in the Treatment of Certain Diseases of the Chest. By Dr. Eugene C. Gehrung . 23
The Action of Valerian in Diabetes Insipidus. By M. Bouchard 24
On the Hypodermic Injection of Quinia in Typhoid Fever. By Dr. Ravicini . . 24

Surgery.

On the Safety of Torsion in Amputation. By Mr. Thomas Bryant 25
Carbolized Ligatures. By Dr. Gray . . 25
On Cutting out and Deligating Hard Sores by Elastic Threads. By Isidor Neumann . 26
External Application of Chloral in the Treatment of Cancer. By M. Constantin Paul . 26
Treatment of Erysipelas. By Kaczorowski . 27
Gunshot Wound of Brain. By Dr. P. W. Van Peyma 27
Spontaneous Myosis. By Dr. Galezowski . 28
An Improved Method of Abscission of the Anterior Portion of the Eyeball. By Mr. Brudenell Carter 29
On Rupture of the Crystalline Lens, and on the Mechanism of Accommodation. By Dr. Fumagalli 29
On Amputation of the Tongue in a Child. By Prof. Azzio Caselli 29
Observations on Cleft Palate. By Sir William Fergusson 30
Varix of the Vena Dorsalis Penis treated by Injection of Chloral. By Dr. Parona . 33
On Lymph-Scrotum. By Dr. Manson . . 33
Acute Periostitis and Subsequent Removal of the Whole Clavicle. By M. Leon le Fort 34
The Whole Upper Extremity and Scapula Wrenched off; Recovery. By Dr. Katholitzky 35
Popliteal Aneurism treated by the Application of Ice; Recovery. By Dr. Constantin Machado 35
On Pseudarthrosis of the Femur cured by Irritant Injections. By M. Bourguet d'Aix 35
Luxation of Tendon of Tibialis Posticus. By M. Martins 36

Midwifery and Gynæcology.

Anomalous Face Presentations. By Dr. Weber 36
Cæsarean Section. By Dr. O. Ungarelli . 36
On a Case of Cæsarean Section after Death; Removal of a Living Child. By Dr. Rota. 37
Use of Ether during Labour. By Dr. Albert H. Smith 37
Puerperal Convalescence. By Dr. Wm. Goodell 38
On Placenta Prævia, coupled with Fibroid of the Uterus. By Dr. Hecht . . . 39
Solution of Ferri Chloridi for Post-partum Hemorrhage. By Dr. C. Holman . . 39
Treatment of Puerperal Convulsions. By Dr. T. Moore Madden 41
Hydrate of Chloral in Puerperal Eclampsia. By Dr. Bourdon 41
New Method of Tying the Umbilical Cord with a view to prevent possible Hemorrhage. By Dr. Dickson 42
On the Combination of Opium with Chloral-Hydrate in the Treatment of threatened Abortion. By M. Martineau . . . 42
Phytolacca Decandra in Mastitis. By Dr. T. Curtis Smith 42
Senile Galactorrhœa. By Drs. Luigi Casa and Theo. A. Dargan 43
Conditions which give rise to Dysmenorrhœa. By Dr. Squarey 44
Congenital Absence of Vagina; Operation. By Prof. Dolbeau 44
On Extirpation of the Inverted Uterus. By Prof. Martini 45
Alteration in the Weight of Mature Newborn Children. By Dr. Kezmarozky . . . 45

Medical Jurisprudence and Toxicology.

Anæsthetization during Sleep. By Dr. W. R. Cluness 46
Poisoning by Berries of the Mistletoe; Recovery. By Mr. Joseph Dixon . . . 46
Treatment of Poisoning by Chloral. By Dr. Albert Erlenmeyer 47

Hygiene.

Sewer Traps. By Dr. Andrew Fergus . . 47

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 380. (*For List of Contents see last page.*) Aug. 1874.

Anatomy and Physiology.

Absence of the Corpus Callosum without disturbance of Intellect.

In the hitherto recorded cases of absence of the corpus callosum in man, there has also been mental deficiency; and the two conditions have been regarded as closely associated. Dr. Malinverni, Professor of Pathological Anatomy in the University of Turin, has published an interesting history of a case in which, although the corpus callosum, the septum lucidum, and the convolution of the corpus callosum were wanting, the intellectual faculties were entire (*Gazzetta della Cliniche*, No. 15, 1874).

With the exception of this anomaly the encephalon presented no trace of organic lesion. The proportion of gray to white substance was normal.

Professor Malinverni arrives at the following conclusion from a consideration of this case.

If a considerable portion of the brain may be absent without lesion of the intellectual, sensory, or motor powers, as was observed in the present case, we must be cautious in accepting the observations relative to the use of the corpus callosum, or to the functions of certain cerebral convolutions. We must not always accept the generally received axiom that there is the most intimate relation between matter and function in all organs, since the volume of the cerebrum is not always in proportion to the amount of intelligence.

The original memoir is illustrated with three plates. A condensed report of the dissection is to be found in the *London Medical Record*, May 27, 1874.

—

The Mucous Membrane of the Larynx.

M. P. Coigne published, in the January number for the present year of *Archives de Physiologie*, some researches on the mucous membrane of the larynx, which are of much interest. He notices, first, the existence of a subepithelial reticulated layer analogous to the lymphoid tissue beneath the mucous membrane of the small intestine; also certain lymphoid bodies, which have been hitherto unknown, similar to the closed follicles of the small intestine. Great as may be the anatomical interest of this discovery, its pathological importance is greater. For the presence of these bodies may account for the ulcerations of the larynx which occur during the course of pyrexias, such as typhoid fever. Again, M. Coigne has observed, on the free border of the true vocal cords, certain papillæ which contain vascular loops and probably a nervous twig also. With the greater development of these papillæ on the anterior half of the cord, may be associated the greater frequency of papillomatous growths at this part of the larynx. Besides the above, the author describes also some follicular glands whose ducts take an oblique direction so as to converge towards the free edges of the true vocal cords, with the manifest object of moistening a part liable to become dry. The closed lymphoid glands are situated chiefly beneath the mucous membrane of the false vocal cords and sacculus laryngis. Further, at the free border of both true and false vocal cords, the epithelium ceases to be ciliated and assumes a squamous character.—*British Med. Journ.*, March 28, 1874.

On an Anomaly of the Œsophagus causing Starvation.

M. Guéniot communicated to the *Société de Chirurgie* (Dec. 10), the case of an infant born with what was diagnosed, and at the necropsy proved to be, an anomaly of the œsophagus, which presented an interruption of continuity. The upper end terminated in a *cul-de-sac*, at 4 centimetres below the first tracheal ring, the lower end springing from the stomach came up to the level of the bifurcation of the trachea. The child lived seven days without taking food, which is interesting from a medico-legal point of view. M. Guéniot observed that, if cases of the kind recurred, the question of nutrition by gastric fistula might be entertained.—*London Med. Record*, Jan. 21, 1874.

—

On the Occurrence of Cartilaginous Bodies and True Bone in the Penis of an Adult.

Virchow's *Archiv*, vol. lx. Heft 1, opens with a paper by Dr. J. von Lenhossék, Professor of Anatomy at Pesth, illustrated by a plate, representing the dorsal and urethral bones, with the microscopic appearances, found in the penis of a man aged forty-two, who died of typhus. Rokitansky and A. Förster (*Handbuch der Speciellen Pathologischen Anatomie*, Leipzig, 1863) both mention the occurrence of fibroid growths and tumours, which became converted into bony plates, in the fibrous septa of the corpora cavernosa penis, etc., as occasional sequelæ of injuries and inflammations. M. Velpeau (*Nouveaux Éléments de Médecine Opératoire*, Paris, 1839, tom. iv.) and Cleland, have carefully described two such cases. (See also L. Strohmayer's *Archiv für physik. Heilkunde*, 1844, Heft 2.) In those cases where the microscope has been used, these bony plates of the virile organ have been found to be mere calcifications, so that A. Förster holds the occurrence of true ossification in the human penis as hitherto unproven. The present case is of peculiar interest, as there were not merely bony plates, but a regular series of these, and of cartilaginous bodies; and besides this, the hitherto doubtful occurrence of the formation of true bone is established by microscopic examination.

The penis in question measured 4.1 inches from the root to the tip of the glans, with a breadth of $1\frac{1}{2}$ inch at the widest part of the penis—a little more at the glans. On first inspection a small nodule (*Höcker*) was noticed to the right of the vena dorsalis, at a distance of 2 inches from the tip of the glans. Otherwise it appeared normal. By palpation this nodule was found of bony hardness, and on the left side of the dorsal vein a second similar hard body could be felt, about $\frac{1}{8}$ of an inch higher up. At a distance of $2\frac{1}{2}$ inches from the tip of the glans, on each side of the pars cavernosa urethræ, a body of like bony hardness was to be felt. Besides these four bone-like bodies there was considerable induration and thickening on both the dorsal and the ventral aspects. The whole of the cartilaginous and bony growths were found in the trabecular tissue of the corpora cavernosa, and extended into the glans itself. To isolate these growths was a work of some difficulty. The formation of bone comprised (1) a dorsal bone with an angular groove for the dorsal bloodvessels, and (2) a series of three ventral bones with angular grooves for the urethra (urethral bones); the cartilaginous formations comprised a median appendage of the dorsal bone, and a strong cornet-like body with three ventral appendages (one median and two lateral). These were of whitish colour, whilst the bones were decidedly yellow. The dorsal bone had a handle or manubrium, $\frac{1}{2}$ of an inch in length, which diverged into two sharply rhomboidal bony lamellæ, each about $\frac{1}{8}$ of an inch in breadth. The whole length of the dorsal surface was about half an inch in the middle line, or a trifle more, measured at either end of the fork, whose angle of divergence was 93°. The urethral bones were rather smaller, but of similar shape, the groove formed by the divergence of the forks for the urethra having angles of 95° or thereabouts. The principal cartilaginous growth was cornet or funnel-shaped, and is somewhat quaintly termed by the author *Amiculum chondroideum* [he borrows this name from J. J. G. Schneller, *Deutsch-lateinisches Lexicon*, Leipzig, 1789]. The extreme length

of the dorsal wall of this funnel was nearly 2 inches, whilst the ventral wall was only 1¼ inch. This body was chiefly situate in the glans, and commenced close to the meatus urinarius. The other pieces of cartilage were smaller. The microscope showed a good deal of elastic tissue, with bundles of connective tissue in these growths; whilst the 'bones' consisted of an outer layer of connective tissue, with some elastic fibres; of a middle transitional or ossifying layer; and of an inner, or true bony layer, with lacunæ, canaliculi, and Haversian canals. The author remarks that these growths, and the general fibroid changes, must have much impaired the erectile capacities of this organ. A friend of his, Dr. J. Rózsay, reports that he distinctly felt "bones" in the penis of a patient who consulted him on account of a "defectus erectionis."

Professor C. von Sigmund (of Vienna) writes that he has observed (in the living) indurations of a gristly, or even bony hardness, in the penes of those who have suffered severely from syphilis. The corpora cavernosa, and usually the dorsal portion, were the seat of these indurations. In these cases, coitus was painful, though ejaculation was not prevented. He has noted five such cases, in which he believed the ossification to be in the lymphatics of the penis; in every case the organ was diminished in size. This opinion, however, is not yet confirmed by *post-mortem* or microscopic examination. Dr. von Lenhossék remarks that the three urethral bones of his case, viewed collectively, reminded him forcibly of the os priapi of certain animals.—*London Med. Record*, June 10, 1874.

—

Women with Three Breasts.

Dr. A. R. Kilpatrick records (*Southern Med. Record*, March, 1874) the case of a woman, aged 60 years, who had three breasts. She was the mother of several children, all grown, and the males were all tall, large men, showing that they had been well nourished.

The breasts were in a line across the thorax; the two outside ones were in the normal positions usually occupied, while the third one was between them, directly over the sternum, and not quite as large as the others; but, she said, there was no difference between it and the others, becoming enlarged during pregnancy, and in time of lactation milk was secreted in it, and the children nursed from it.

Dr. George Ross reports (*Virginia Med. Monthly*, May, 1874) the case of a finely developed mulatto woman who has a third breast underneath the left, just above the sulcus formed by that breast and the thoracic walls. This gland is probably six inches in circumference, provided with nipple, follicles, areola, etc., and yields a due amount of milk during the natural period of lactation, when it requires "milking" almost as regularly as the normal breast. It is quite painful from over-distension when not attended to. The nipple is too small for the child to nurse.

—

Complete Absence of the Uterus.

At a recent meeting of the Swedish Medical Society, Dr. Lamm narrated the following interesting case: A servant girl, 25 years of age, consulted him for amenorrhœa. On bimanual examination through the vagina and rectum, no trace of a uterus or its rudiments could be found, but at about the normal level of the os there was a long, thin, firm band crossing the pelvis. There was a vagina, but instead of gradually enlarging as it ascended, it became smaller, somewhat like the finger of a glove; its length was about 9 centimetres. There were no rugæ, and the mucous surface was drier than usual. All the external genitals, together with the clitoris, were normal. The pelvis also was well formed, and the breasts and nipples were fully developed. Menstruation had, naturally, never taken place, nor had she experienced any of its molimina. Though she was subject to headaches, no periodicity was noticeable. Another strange feature of this case was, that the ovaries were found lying in the inguinal canals, and were about the size of plums. One could be replaced, the

other could not. After hard labor the ovaries became swollen and painful; but these attacks did not seem to be in any way connected with the phenomena of menstruation.—*Med. Record*, June 15, 1874.

—

On the Respiratory Centre.

Gierke (Pflüger's *Archiv*, vol. viii. p. 583–600) locates the respiratory centre in a logitudinal bundle of fine nerve-fibres, lying on each side of the middle line in the medulla oblongata. It has previously been described as belonging to the origin of the vagus and glosso-pharyngeal nerves. It is a continuation of bundles, which, higher up in the medulla, pass out transversely from the nuclei of the vagus and hypoglossal nerves, then proceed longitudinally downwards, and lose themselves in the reticular nervous tissue between the anterior and posterior horns. This respiratory centre does not consist of a distinct group of cells. The author regards respiration as a reflex act, the afferent nerves being the trigeminus and vagus, and the efferent nerves the phrenic, intercostal, and other nerves.

Prokop Rokitansky (Stricker's *Medicinische Jahrbucher*, 1874, p. 30–41) considers that the respiratory centre is not confined to the medulla, but extends to the cord; for he finds that respiratory movements occur in rabbits poisoned by strychnia, although the medulla has been separated from the spinal cord. Rabbits die from imperfect respiration when the medulla oblongata is cut through at the posterior border of the pons Varolii. When respiration has been arrested by dividing the medulla at this point, it begins again if strychnia be injected. [The action of strychnia in exciting the spinal portion of the respiratory centre is similar to its action on the vasomotor centre as described by Schlesinger; *vide London Medical Record*, vol. ii. p. 36.]—*London Med. Record*, May 13, 1874.

—

On the Action of Bile in promoting the Absorption of Fats.

Mr. Charles H. Williams, of Boston, in a essay, to which was awarded the first prize of the Boylston Medical Society for 1874, reports (*Supplement to Boston Med. and Surg. Journ.*, May 7, 1874) that from a number of original experiments, which he gives in detail, it would seem to follow:—

First, that, when the bile is mixed with the alkaline fluids of the intestine, its power of promoting fat absorption will be greatest.

Secondly, that, if either the bile or the alkaline fluids be prevented from entering the intestine, still a certain amount of fat absorption will take place; for if the bile alone flows in, it will exert its specific influence in aiding the mechanical passage of the fats, and if the alkaline fluids only enter, considerable fat will still penetrate the walls, aided by the alkalinity of the fluid, even if there were no other action. These suggestions seem to be sustained by previous experiments, for it has been found that, when all bile was cut off from the intestine, still some fat was absorbed; and, also, when a pancreatic fistula was made, considerable fat was still found in the lacteals—more in amount in the last case, perhaps, because there was still the alkaline intestinal juice, which could not be cut off.

Mr. Williams has endeavoured to show, by new experiments, and methods differing somewhat from those which have been tried before:—

1. That the passage of neutral fats, through capillary canals or pores, is favoured by the presence of bile in those pores.

2. That this action is increased when the bile is rendered alkaline, and diminished when it is acid.

3. That the action cannot be due to the bile changing the form of the pores.

4. That, after passing through membranes moistened with bile, the fats appear more finely divided than with membranes wet with other substances, apparently showing that the drop-tension or cohesion of the fat has been affected.

Materia Medica and Therapeutics.

On the Mode of Action of Iodine and its Preparations.

Prof. Sée contributes to the *Med. Times and Gaz.* (Feb. 14, 1874) the following observations on this subject.

Iodine may be made to enter the system through different channels—viz., the digestive tube, the skin, the mucous membrane of the respiratory organs, and the serous cavities.

The digestive tube is the most certain and natural channel, and it is this which is nearly always taken advantage of. The tincture of iodine is scarcely ever prescribed internally—in fact, it possesses no advantages, but offers, on the contrary, certain inconveniences. If it remain in the stomach in the form of tincture, it produces a caustic effect on the mucous membrane of the digestive organ; but it always combines with a little soda or potash which it meets with in the stomach, and is converted into an iodated alkali. Hence it may be seen that those who administer iodine in its simple form are labouring under an erroneous impression if they imagine that the drug undergoes no change in the stomach.

The iodide of potassium should not be administered in the form of pills, as it is thus liable to produce a caustic effect on the mucous lining of the stomach; it should always be given in solution. And in prescribing this salt one should always bear in mind that the greater the quantity of liquid in which it is dissolved, the better the absorption. There is, however, a certain limit to the quantity of fluid to be employed, which of course a physician will not exceed, and which it is scarcely necessary even to mention.

The skin has often been selected as the channel for iodine to enter the economy. In employing an ointment composed of iodine in the proportion of one part to ten parts, in certain cases an effect is produced, in others nothing is obtained—that is to say, in certain cases iodine has entered the organism, in others it has remained on the skin. It is expedient to know under what circumstances the iodine has been absorbed. Divers explanations have been given to account for the above facts. According to Professor Sée, two conditions contribute to the absorption of iodine: 1. To make iodine enter by the skin, the epidermis, which acts as a barrier, must be destroyed. To effect this, strong and repeated frictions of iodine ointment will have to be employed; but it is evident these cannot be continued, and a single friction would be perfectly useless. 2. In examining these facts, it is found that there are cases in which the epidermis has not been in the least affected by the frictions, and in which, nevertheless, the absorption of iodine might be proved. This would appear to be in contradiction to what has just been stated above, but it might be explained by the extreme volatility of this metalloid. When iodine is rubbed into the skin in the form of ointment, it is found in the mucous membrane of the lungs; whereas when an ointment is made of an iodide, the latter is not found in the lungs, because it is not volatile, and does not contain free iodine. Thus it may be seen it is by the air-passages, and not by the skin, that the iodine entered the system; and in proof that this is the case, it is sufficient to leave a phial of iodine uncorked near one's self, and the latter will be absorbed without touching or putting it to the nose, for it is found in the secretions.

Quacks seem to have been aware of this phenomenon when they invented the sachets of the powder of iodine, iodized cotton, and iodized flannel vests which are to be worn next the skin. These divers agents possess a real therapeutic property; but the explanation of their action is the same as that given above—that is, the iodine they contain is absorbed by the air-passages, and not by the skin. If a piece of iodized cotton be placed on the arm, and covered with a watch-glass or a glass bell, nothing will be observed; but in a person who wears an iodized vest constantly, the iodine enters his economy, not by his skin, but by his nostrils.

Painting with the tincture of iodine has much the same action; we know to

what extent this is now employed, and there is scarcely a pain, a case of scrofula or phthisis, in which it is not resorted to. In phthisical patients, the tincture of iodine externally has taken the place of blisters and cauteries; and the change is certainly to the advantage of the iodine; but its action is not that of blisters or cauteries. Here, also, the same explanation may be given of its action; but there is one effect which is scarcely suspected, and that is, when the tincture of iodine is sufficiently strong or the painting too frequently renewed, the epidermis is destroyed. The iodine enters the fissures thus formed, and produces inflammation of the cellular tissue, as has been observed at post-mortem examinations. To produce a more direct action on the tubercles of phthisical patients, it would certainly be preferable to place an open phial of the tincture of iodine on a table near the patient, as has been practised by M. Piorry, in order that the iodine may be inhaled.

Iodine baths are also intended to act on the skin. These baths, which used to be much lauded, are now seldom or never employed, as their efficacy is very much questioned. It has been asserted that after an iodine bath this metalloid has been found in the urine. In this case, how did the iodine enter the body? Not by the skin, but by the air-passages; and even then such a result cannot be obtained unless the bath-room be hermetically closed, and the patient remain in the bath some time.

Fomentations are also intended as a means of effecting the absorption of certain medicaments into the tissues. These substances are varied, according to the effect desired—such as the tincture of iodine, laudanum, belladonna, etc. As with frictions, a real effect is sometimes obtained with fomentations, at other times none This depends on the state of the skin, which is different in different individuals. If the skin be soft and pervious, iodine and the other substances may be absorbed; but it is difficult to know when the skin is in a favourable condition for absorption and when it is not. There exists normally on the skin an oily coating, which opposes the penetration of the iodide of potassium. A soap bath may remove this varnish, but it is immediately reproduced; and individuals who have greasy skins, whatever they may do, will never succeed in making their skin absorb the iodide.

The same may be said of baths composed of the mono-sulphuret of sodium. Little or nothing is absorbed unless the doors and windows are closed, for the sulphuretted hydrogen which is evolved is about the only active agent, as it is taken up by the respiratory apparatus. This would explain the superiority of the sulphurous waters—such as Luchon, Barèges, which whiten on being drawn—over those that do not whiten, as Amélie-les-Bains. Iodized baths owe their efficacy to the iodine being absorbed by the respiratory organs.

There are some natural iodated waters—but they are rare—in France; there are only those of Salins and Salies, in Béarn, and it must be admitted that they are not very rich in iodine. In Switzerland they have the waters of Saxony; in Prussia, those of Kreutznach. These latter cannot be replaced; they are those that contain the most iodide and bromide of potassium combined. Nevertheless, the French might still avoid going to Prussia by utilizing hot sea-water baths. The sea-water, and particularly the sea-air, contain a certain proportion of iodine and bromine. But it must not be forgotton that this atmosphere does not extend very far, and that about 400 or 500 yards from the shore we get the breeze, but not the iodized air; to have the benefit of this, one must remain the whole day on the beach, or, what is still better, take up his residence on the sea-coast.

When iodine enters the economy it is easily detected, and is almost immediately found in the urine and in the saliva; but the whole is not found at once. The elimination of iodine takes place more rapidly when it is administered in the form of iodide; but in whatever manner it is given, when the iodine enters the blood it combines with potassium contained in the corpuscles; and as the salts of potash are very diffusible, it is not surprising to find iodine in the urine almost immediately it enters the blood. Iodine remains in the economy longer than one would be led to suppose, judging from its facile elimination, and it is found in the saliva after its presence has ceased to be detected in the urine. The elimination of iodine is intermittent, and it has been frequently seen that

an individual who had been eliminating iodine that he had been taking, ceases to eliminate for some time and then begins again to eliminate.

The same is the case with arsenic and mercury, particularly the latter. If you mercurialize a dog by friction, the animal may eliminate mercury during two months, two months and a half, even three months, with complete intermission. This tardy elimination may be explained by the fact that the drug does not remain in the blood, but in the organs.

We have seen how iodine enters the blood, and, without stopping to inquire whether it is there in a state of free iodine, or of an iodated alkali, or of albuminate of iodine, we shall successively study its action on the blood, on the circulation, on innervation, on nutrition, and on the organs of elimination, which will be treated of in the next lecture.

—

On the Action of the Salts of Soda and allied Bases introduced directly into the Blood.

Dr. Blake (*Journal of Anatomy and Phys.*, June, 1873) has investigated the action of salts of soda, lithia, cæsium, rubidium, thallium, and silver. Those used were the nitrates of soda and silver, the sulphates of lithia and thallium, and the chlorides of cæsium and rubidium. When injected into the jugular vein, they arrested the passage of blood through the lungs and greatly diminished the pressure of blood in the arteries in the course of a few seconds. On *post-mortem* examination, the lungs of animals poisoned by soda or lithia were found œdematous. In those poisoned by the other metals, the right side of the heart was much distended, and the left nearly empty. All these metals kill by their action on the lungs, either by arresting the circulation through them, or by causing such changes in the pulmonary tissue as rapidly prevent the aeration of the blood. They do not diminish the irritability of the heart, but, on the contrary, prolong its vitality. None of them, with the exception of cæsium, have any direct effect on the functions of the nervous system. Although they have such a powerful action in causing contraction of the pulmonary capillaries, they all, with the exception of silver, pass with great facility through the systemic capillaries, unless introduced into the arteries in large quantities. Very much larger quantities can be introduced into the arteries than into the veins without causing death; and it is only when injected into the arteries in quantities large enough for them to reach the lungs in a sufficiently concentrated state to act upon these organs, that they kill. These properties belong to all the more strictly isomorphous members of the group. The only exceptions are cæsium and silver, the latter being evidently an outlying member of the group.

The former exerts a decided action on the nervous system when introduced into the arteries, and a small quantity of a silver salt in the arterial blood causes obstruction to its passage through the systematic capillaries. The arrest of the pulmonary circulation may be due either to contraction of the pulmonary capillaries or to changes in the shape of the corpuscles. In the blood of an animal poisoned by cæsium, the corpuscles in the venous blood were thickened and crenated. In the left side of the heart not a single crenated corpuscle was found. The corpuscles never formed rouleaux. The molecular movements were very active many hours after death. The nitrate is much more poisonous than any of the other soda salts.—*London Med. Record*, Feb. 4, 1874.

—

Influence of Mercury upon the Liver.

Dr. Charles Murchison, Physician and Lecturer on Medicine in St. Thomas's Hospital, London, in his last Croonian Lecture, on Functional Derangements of the Liver (*Lancet*, May 2, 1874) said that among the aperients which have long enjoyed a great reputation for promoting the secretion and discharge of bile and otherwise acting beneficially in derangements of the liver, mercury and its preparations hold a pre-eminent place. At the present day, mercury has

lost much of its former reputation as a cholagogue and alterative, and there is much difference of opinion as to its power over the liver. The practical physician gives a dose of calomel, finds the quantity of bile in the motions greatly increased and his patient's state much improved; and he argues that the liver has been stimulated by the mercury to an increased secretion of bile, and that to this cause his patient's improvement must be ascribed. The physiologist, on the other hand, ties the common bile-duct in one of the lower animals, produces a fistulous opening into the gall-bladder, and then finds that calomel has no effect on, if it do not diminish, the amount of bile that drains away through the fistula.

These results of experiments upon the lower animals have added greatly to the discredit previously thrown upon mercury by its failure, when brought to the test of accurate clinical observation, to absorb plastic lymph in most forms of inflammation; and some eminent physicians are even of opinion that mercury and its preparations ought to be erased from our Pharmacopœia.[1] On the other hand, it has been fairly objected that the results of experiments with mercury upon dogs do not warrant conclusions as to its effects upon man; and, even granting that in man mercury does not increase the quantity of bile secreted by the liver in health, it does not follow that in disease there may not be some condition adverse to the formation of bile, which mercury may have the power of removing. Much, however, of the difference of opinion between the physiologist and the practical physician may be reconciled by keeping in mind the osmotic circulation, to which I referred in my first lecture, as constantly going on between the intestinal contents and the blood. A large part of the bile secreted by the liver and thrown into the bowel is constantly being reabsorbed, to reach the liver again; and accordingly, when the common bile-duct is tied, and a fistulous opening in the gall-bladder established, the quantity of bile which escapes from the fistulous opening immediately after the operation is much greater than at any time subsequently (Schiff). Mercury and allied purgatives produce bilious stools by irritating the upper part of the bowel, and sweeping on the bile before there is time for its reabsorption. The fact of mercury standing at the bottom of the scale of cholagogues in Röhrig's experiments is accounted for by its surpassing other cholagogues in this property, for of course the larger the quantity of bile that is swept down the bowel the less is reabsorbed, and the less escapes from a biliary fistula That mercury does act especially upon the duodenum is proved, not merely by the large flow of bile which follows its action, but by the fact discovered by Radziejewski, that leucin and tyrosin, which are products of pancreatic digestion, under ordinary circumstances decomposed in the bowel, appear in the feces after the administration of mercurials. It would appear, then, that mercury, by increasing the elimination of bile, and lessening the amount of bile and of other products of disintegrated albumen circulating with it in the portal blood, is, after all, a true cholagogue, relieving a loaded liver far more effectually than if it acted merely by stimulating the liver to increased secretion, as was formerly believed, and as some authorities still maintain; for in this case it might be expected to increase, instead of diminish, hepatic congestion. It is not impossible also that the irritation of the duodenum by calomel and other purgatives may be reflected to the gall-bladder, and cause it to contract and discharge its contents, and thus account in part for the increased quantity of bile in the stools.

There are also, I believe, grounds for believing that, apart from its increasing the discharge of bile from the bowel, mercury exerts a beneficial action in many functional derangements of the liver, in whatever way this is to be explained. Patients of the greatest intelligence suffering from hepatic disorder constantly declare that they derive benefit from occasional or repeated doses of mercurials which no other medicine or treatment of any sort confers; and the scepticism of the most doubting physician would, I believe, be removed, should he unfortunately find it necessary to test the truth of their statements in his own person. It is not impossible that the good effects of mercury on the

[1] See Bennett, Brit. Med. Journ., 1868, vol. ii. 176.

liver, and in some forms of inflammation, may be due to its property of promoting disintegration. Mercury appears to have the power of rendering effused fibrin less cohesive, and so more easily removed by absorption, than it otherwise would be.[1] Modern physicians of high standing, and little likely to be accused of credulity as to the beneficial action of drugs, have thought that mercury is useful in croup, by causing a degradation and disintegration of the plastic membrane. If this be so, it seems not improbable that mercury, which from experiments[2] we know to reach the liver, may under certain circumstances act beneficially by promoting, or in some way influencing, the disintegration of albumen. The remarkable effect of mercury on constitutional syphilis probably admits of a similar explanation. But in whatever way it is to be explained, the clinical proofs of the efficacy of mercury in certain derangements of the liver are to my mind overwhelming. I say so the more advisedly because I was taught to regard mercury as a remedy worse than useless, not only in hepatic diseases, but in syphilis; it cannot, therefore, be said that the convictions forced upon me by experience are the result of preconceived opinions.

—

Solvent Action of the Papya Juice on the Nitrogenous Articles of Food.

Assistant-Surgeon G. C. Roy, M.D., read before the Glasgow Medico-Chirurgical Society (*Glasgow Med. Journ.*, Jan. 1874) a paper containing an account of some experiments which he had made on the solvent action of the papya juice based upon the strength of a popular belief in India. There it is the practice among native cooks to add a few drops of the milky juice of the plant to tough old meat, to make it tender and supple.

The plant belongs to the natural order Papyacæ, and is termed Carica Papya. It is indigenous to tropical climates, and has a rapid growth, consisting of an unbranched stem from ten to twelve feet high, surmounted by large, deeply palmated stalked leaves. The fruits or pepos are edible both in their ripe and unripe state. The former is used as dessert, and the latter cooked as vegetable. The fruit is about the size of a melon, with a green rind, inclosing a sweet, delicious pulp, in which innumerable seeds, about the size and appearance of black pepper, are imbedded. The plant grows extensively in Bengal and over all India, and bears fruit in one year.

Incisions on the stem, or breaking off the leaf from its joint, yield a few drops of this milky juice, but an abundant flow can be obtained by scarifying the unripe fruit in the same way as the poppy capsules are treated.

The experiments which Dr. Roy details conclusively show the solvent action of the juice on all nitrogenous articles of food. Concerning the nature of its action he says:—

The digestion of nitrogenous principles is mostly a chemical process, in which the gastric juice plays an important part. The rapidity and completeness with which the papya juice acts on meat, when aided by high temperature, surpasses all digestive processes on record. The smallness of quantity used to bring about the change negatives the assumption of any caustic virtue in the plant. Besides, I have put the juice on my tongue, and applied it to the skin without any irritant effect. I was at first inclined to believe the solvent action as due to some fixed organic acid, either tartaric, citric, or malic, as will be seen from the records of analysis, but I have failed to arrive at any determined result. The disintegration takes place too soon to be the effect of mere putrefaction. The moving vibriones observed under the microscope were no doubt generated by keeping, and were not the cause, but the effect of disintegration. In all putrefactive changes these are looked upon as the initiators. But inasmuch as the boiling temperature which destroys the existence of vibriones hastens this peculiar change, it is fair to suppose that the solvent action is something different from putrefaction. Besides, no reagent has yet been able

[1] Bence Jones, Lectures on Pathology and Therapeutics, 1867, p. 283.

[2] Authenrieth and Zeller found mercury in the bile of animals treated with mercurial frictions. (Budd, Diseases of the Liver, 3d ed., 1857, p. 57.)

to bring about putrefaction in fresh meat, in five minutes. The fruits in their ripe and unripe state are edible and quite harmless.

The digestive agent is not acid, for its reaction is too feeble, and even when long keeping makes it ammoniacal and neutralizes the acidity, it retains its peculiar virtue. The solvent principle is soluble in water. Coagulated albumen dissolved by it will not coagulate again with heat, acquiring the property of albuminose; gluten is thoroughly dissolved, and can be re-precipitated.

The whole action is so identical with healthy digestion that I wonder we have not availed ourselves of this medicinal property, in cases of invalids and dyspeptics, to substitute a process of artificial digestion.

A few grains taken immediately after a meal will substitute the power where it is wanting. I have not tried it in any case internally, but from its effect on the cat, which grew so fond of it that it became a task to prevent its depredation, I believe it is harmless. My attention was also directed to discover whether it could be utilized in preparing soluble meat or something like a liquid extract, but its liability to decomposition is a bar to its use. Further investigations are yet wanting to establish its repute, but, as far as they have been gone into, the result is highly encouraging.

—

On the Use of Hydrargyrum Oleinicum.

Dr. O. Martini, of Dresden (*Schmidt's Jahrbücher*, Dec. 30, 1873), has recorded his experience with this preparation, which is a chemical compound of oxide of mercury and oleic acid, and was first brought into notice by Professor John Marshall, of London, in an essay on the use of oleate of mercury and morphia as a local application in persistent inflammation. This compound is, in fact, a solution of oxide of mercury in oleic acid, or, in other words, an oleate of mercury dissolved in oleic acid to which a certain proportion of morphia is added, the latter alkaloid being readibly soluble in oleic acid, and forming with it a chemical compound. Mr. Marshall considered that this preparation was cleaner and more economical than the ordinary mercurial ointment, and, moreover, that it was more efficacious, inasmuch as it is a chemical compound instead of a mechanical mixture. The cases in which he used it were chiefly chronic inflammations of the joints and of the synovial membranes, rheumatic affections of the joints, periostitis, inflammation of the lymphatic glands, and several skin diseases. It was found to be also especially useful in syphilitic affections.

For about a year the hydrargyrum oleinicum has been used in Dresden instead of the ordinary mercurial ointment, and Dr. Martini has found it very efficacious. He employed it in forty cases of general syphilis in the town hospital of Dresden, the mode of application being by rubbing it into the skin. He thinks it preferable to the common ointment, as it is cleaner and is more easily rubbed in. It appears very seldom to cause salivation, although it is stated that further clinical experience is required on this point. Dr. Schumann, of Dresden, has found the hydrargyrum oleinicum very useful in iritis and retinitis, and he has had it rubbed in for months without any salivation being produced.—*Brit. and For. Med.-Chir. Rev.*, April, 1874.

—

On Sulphate of Quinia as an Abortifacient and Oxytocic.

In a lecture reported in the *Gazette delle Cliniche*, No. 29, 1873, Dr. Chiari, of Milan, says that he has given quinia to forty patients in the Royal St. Catherine Institution of that city, and has arrived at the following results: 1. Disulphate of quinia possesses no action as an abortifacient. 2. In the artificial induction of premature labour, quinia is not to be trusted, either alone or as an adjunct to mechanical means. 3. In cases of languid, suspended, or irregular labour, it would not be sound practice to trust to the action of quinia; and, *à fortiori*, its effect must be regarded as negative when administered in cases of slight malformation of the pelvis. 4. The assertion of Ponti, of Parma, that ergot must give way to Peruvian bark, is chimerical, at least as regards mid-

wifery. 5. When quinia is indicated by the presence of general morbid conditions during pregnancy, it should be given, not only as a remedy for the disease, but also as the best means of preventing abortion or premature labour. 6. Quinia has no power whatever in preventing or modifying morbid conditions of the puerperal state, whether of infectious or spasmodic origin.—*Medical Record*, April 1, 1874.

—

On Smoked Glasses.

Dr. Dobrowolski, of St. Petersburg, writes (*Annales d'Oculistique*, September and October, 1873) to point out the objections which apply to the use of blue glasses, and the superiority of gray or smoked glasses. He argues that blue glasses will not diminish equally the amount of coloured rays which reach the retina, inasmuch as they transmit a large number of the red rays in addition to all the blue and violet; while it is essential that, in attempting to shield the eyes from too bright a light, the surgeon should employ some glasses which will diminish in equal proportion all the rays which constitute ordinary sunlight. He argues entirely on the assumption that there are distinct sets of nerves in the retina which are especially sensitive to certain rays of light, and asserts that these glasses protect most completely the nerves sensitive to yellow rays, a very little those nerves which are sensitive to red rays, and not at all those which perceive the blue or violet rays. Another objection which he makes is that, after wearing blue spectacles, the eye has great difficulty sometimes in accommodating itself again to ordinary sunlight.

On the other hand, Dobrowolski has great reason for believing that smoked glasses do not entail any of these inconveniences, because they diminish the passage of all rays equally, and do not render the eye that has been wearing them unable to adapt itself to ordinary bright light.—*London Med. Record*, April 8, 1874.

Medicine.

On the Slighter Forms of Typhoid Fever.

Typhoid fever must be a subject of interest to the medical profession for many years to come, until its history is more fully worked out than at present, and we are able to say with absolute certainty what is and what is not typhoid. It is still a question whether many of the cases now returned as simple continued fever are not in reality typhoid; and we cannot but be indebted to all those who, by their observations, aid in settling this important question. There can be little doubt that a form of typhoid fever which, from its mildness, does small harm to the patient himself, is still quite as dangerous, *quoad* infectiveness, to the community at large as one labouring under a more severe variety of the disease; and it certainly makes all the difference to the patient himself whether the doctor recognizes the nature of his illness or not, and treats him accordingly. The philosophical and, in many ways, original lecture of Prof. Jürgensen, of Tübingen, on the slighter forms of typhoid fever (Volkmann's *Sammlung Klinischer Vorträge*, No. 61), of which the following is but a brief abstract, will therefore be doubtless acceptable to most of our readers:—

It was Griesinger who first called attention to the phenomena of the slighter forms of typhoid fever, and showed that it is their *short duration*, and not the slightness of a typhoid fever running its normal course, which characterizes them. Although his facts have not been doubted, yet they have not received the assent they deserve. Jürgensen has founded his present statements on the observation of more than a hundred cases during three epidemics in and about Kiel in 1865, 1866, and 1868. In the last epidemic, twenty-nine persons con-

nected with the academical hospital were attacked, and one died and was found to have all the anatomical characteristics of typhoid fever. There was a close resemblance between all the cases. In the first place, the onset of the disease is usually sudden (seventy-four times in eighty-seven), and in half the cases is accompanied by a pretty well marked rigor. There is headache, while the temperature rises quickly to its maximum—sometimes to 40° Cent. (104° Fahr.) in thirty-four hours—and not in the usual zigzag fashion. At the height of the disease morning remissions of 1° to 1½° and nocturnal exacerbations occur, just as in the ordinary severe forms, only the remissions are slighter. The absolute height of the temperature varies considerably, and the influence on it of quinia and of cold applications is relatively great. After cold baths there are often very decided irregularities in it—*e. g.*, higher morning than evening readings. In the second stage, a high temperature with only slight remissions is not so very uncommon, the thermometer standing above 40° Cent. for several days. The fever-curve of the slightest forms of typhoid exhibits the influence of insufficient infection in all their stages "by the prevalence of the law which governs the normal temperature over that called into operation by the typhoid poison." The usual steep curves of the third stage (high evening and normal morning temperatures) fail entirely in the slight forms, and the temperature generally falls gradually in from twenty-four to seventy-two hours to its normal level.

Swelling of the spleen was present in eighty-one out of eighty-eight cases. Roseola is often absent in the very short cases (ten days); but generally present in those lasting two weeks or more, and occurs about the fourth or fifth day; and, as a general rule, the more intense the rash, the more severe the disease. Bronchial catarrh seldom occurs, and diarrhœa was only present in 16 per cent. of Jürgensen's cases, while perforation and hemorrhage from the bowels were not observed once. Albumen is often found in the urine early, especially in the cases in which the fever runs high. The period of convalescence is relatively a long one, and is accompanied by great muscular weakness, which may even pass on to temporary paralysis if the muscles be at all over-strained. Relapses are rather of frequent occurrence, though Jürgensen refers them all to errors in diet on the patient's part, as he found a definite connection between the two in all his cases. He believes that the so-called "*Typhus ambulatorius*" of books is only a slight attack of typhoid fever, prolonged and exacerbated by dietetic errors, and he therefore insists even more strongly on absolute diet in the slighter than in the ordinary well-marked forms of the disease. No patient under his care is allowed to take solid food until the temperature in the rectum has not, for at least six days, reached 38° Cent., four readings being taken daily. Jürgensen's explanation of the typhoid relapses after improper food is that in such patients the intestine does not at first offer a suitable nursery (*Boden*) for the increase of the fever-poison, but requires an external irritation —*i. e.*, solid particles of undigested food—to fit it for reproduction. Therapeutically, in addition to absolute diet and rest in bed, Prof. Jürgensen makes use of quinia and cold baths in such cases as there seems danger from the fever-process itself.

The same season of the year (August to November), and the same period of life (fifteen to thirty years of age), which furnish the greatest percentage of severe typhoid cases, also give the greatest percentage of the slighter.—*Med. Times and Gaz.*, Feb. 14, 1874.

—

On Diphtheria.

In a paper published in the *Gazette des Hôpitaux* for June 2, Prof. Bouchut refers to certain pulmonary lesions peculiar to diphtheria and croup, the existence of which he has repeatedly drawn attention to during the last fifteen years, but which, he believes, have not received the recognition which they deserve.

According to general opinion, he observes, diphtheria is supposed to be a disease primarily general, like smallpox, due to a primary alteration in the blood—a diphtheritic poisoning complicating the local lesion, and often termi-

nating in lobular pneumonia. According to Dr. Bouchut's own observation, diphtheria is at first a local malady complicated by absorption from the ulcerated surface. From this absorption proceeds a general infection manifesting itself in endocarditis, endarteritis, with infarction of the cellular tissue and the lung, after giving rise to pulmonary abscesses if the patient live long enough. The lesions of diphtheria are those of septicæmia, for we meet with albuminous nephritis, infarctions of the skin, spleen, liver, and of the lungs, which may go on to the formation of metastatic abscess. There is, therefore, a local period without any general accidents in which the lesion is entirely superficial, and it is not until later that the general phenomena of septicæmia are manifested with phagedenism, albuminuria, infarctus, and metastatic abscess, absolutely the same as are observed after operations or deliveries where traumatic or puerperal septicæmia is set up.

From this view of the disease it results that when the disease is seen in time it may be arrested *in situ* and absorption prevented. For this purpose all the diseased surface should be cauterized with a pencil of nitrate of silver; but when the patient is only seen at a later period, and the diphtheria has passed beyond the tonsils and occupies the pharynx, as cauterization cannot be applied to the whole of the diseased surface, it had better be abstained from. In this case, pharyngeal douches of tincture of saponaria and tar should be resorted to; and during the last ten years M. Bouchut has employed no other means in his hospital. These douches should be applied by means of a hydrocele syringe every hour, day and night. The child, opening its mouth, inclines over a basin held under the chin, and the liquid, forcibly injected, flows out again without ever penetrating into the air-passages. M. Bouchut employs for the injection 100 grammes of Lebœuf's *coal-tar saponiné* to 400 grammes of water, and prefers this to carbolic-acid injections, which he has tried comparatively. Together with these injections he often gives antimony in contra-stimulant doses—five centigrammes in sixty grammes of vehicle; a teaspoonful every hour. The child should also be encouraged to take as much food as possible, feeding being here one of the best remedies. A child who refuses to eat at all is a lost child. Even a little meat does no harm, and, if this cannot be taken, strong soups should be given, as also bread and butter, milk, biscuits dipped in wine, etc. For drinks, wine or brandy should be added to the water used. Wine is, indeed, a powerful auxiliary in the treatment.—*Med. Times and Gaz.*, June 3, 1874.

—

On Cardiac Complications in Croup and Diphtheria.

In a thesis lately published by M. Labadie Lagrave, the author clears up some obscure points in the history of diphtheria. He says that the majority of modern writers agree in vaguely referring the fatal result which frequently terminates this affection to a sort of general blood-poisoning; to a primary diphtheritic infection in some persons, to a secondary in others; but to which the imperfect state of modern hæmatology does not allow the true character to be assigned. Would it not, however, be possible to assign a more precise cause and starting-point for these mortal accidents? The author has partially replied to this question by describing a collection of lesions resulting directly from the injection of the blood in diphtheria, obtained from the analysis of a hundred cases, nearly all observed by himself.

Though M. Labadie Lagrave has specially given his attention to the cardiac complications of this disease, he has set forth the various anatomical lesions of the body with which he has met in the different organs. In regard to these, he has arrived at the following results. Vegetating acute endocarditis with fibrinous deposits, which are frequently the cause of embolism, are present in the heart in twenty-one out of forty instances. The lungs frequently contain nodules of pulmonary apoplexy or sanguineous infarctus, probably due to arterial or capillary embolism. These organs also show small venous thromboses between their lobules. Sanguineous infarctus sometimes occurs beneath the pericardium, between the impaired fibres of the heart, and occasionally in the subcutaneous cellular tissue. Venous thromboses exist in the pia mater, in the brain, in the

sinuses of the dura mater, in the liver, and in other parts of the body. In cases of malignant diphtheria, the muscular fibre of the heart is often degenerated (myocarditis); sometimes also the internal wall of the smaller arteries is itself inflamed (proliferating endarteritis); the kidney-substance has also degenerated (parenchymatous nephritis); and leucocytosis and albuminuria are frequently met with in connection with these lesions.

Endocarditis is the most common of all these lesions, and M. Labadie Lagrave has specially applied himself to its study. Passing to the clinical part of the work, we perceive the importance which the diagnosis of this complication may have; the diagnosis being often rendered very difficult by the latent and insidious progress of the disorder, as is likewise observed in most cases of secondary endocarditis. The danger thus run by the patients is easily seen. The endocarditis in its first stage not only impedes and complicates the course of the primary disorder, but it may in its subsequent course produce sudden or speedy death by favouring the formation of intracardiac clots, or may finally carry off the patients by the gravity or the extent of the cardiac accidents. These accidents may assume various forms. Sometimes the cardiac thrombosis brings on the death of the patient in a few hours, after a more or less prolonged period of true asphyxia; sometimes death does not ensue until two or three days after the symptoms have appeared. M. Labadie Lagrave cites a more uncommon complication, which occurred in a child on whom tracheotomy had been performed. The little patient was seized with hemiplegia, and died with softening of the brain produced by arterial hemorrhage. Endocarditis, however, is not always fatal, the book recording two well-authenticated cases of cure. The most important points to be gathered from the clinical teaching of M. Labadie Lagrave's interesting work are, that cardiac complication frequently exists in diphtheria, bringing on, when it is in relation with croup, symptoms which may simulate attacks of dyspnœa produced by obstruction of the trachea, with which it is important not to confound them. This diagnosis is equally useful both for prognosis and for treatment.—*London Med. Record*, Jan. 28, 1874.

—

Phosphorus in Insanity.

Dr. Willis E. Ford, Assistant Physician of the New York State Lunatic Asylum, contributes (*American Journal of Insanity*, Jan. 1874) an interesting paper on this subject.

"The common observation of physicians, that in the acute forms of insanity, as in all other cases of increased mental activity, phosphatic matter in excess is found in the urine, while the individual becomes proportionately weak, irritable, and finally exhausted, would seem to point out some relation between exhaustion of nervous force and the rapid oxidation and excretion of phosphorus from the system. The fact that in the stage of exhaustion following mania, the excretion of phosphorus is much less than in health, would seem to indicate that to restore the exhausted nervous system to its proper balance, by supplying the wanting element, is a great desideratum in treatment.

"Patients passing through the transitional stage from acute to the more chronic forms of insanity, or to recovery, are said to be dementing. Their appetite is usually good, not infrequently abnormally large. They sleep well, and accumulate flesh rapidly. The face becomes puffy and full, and those lines which give character and expression are more or less obliterated. Instead of being the dial of the thoughts and feelings within, it indicates mental apathy, and often almost entire absence of mental activity. This is but a reflex of the cerebral state, the central nerves of special sense and expression revealing in their peripheral expansion the condition of the central ganglia. The lips become everted and present a pouting appearance, while the ears and finger tips are congested and blue, showing that the vaso-motor system also participates in the general depression and inactivity. At times the skin acquires an unctuous, unnatural appearance, while in other cases there is an extremely anæmic condition of surface, with a cold yellowish skin. These patients are inactive, sit for hours silent, and are indifferent to their surroundings, careless in dress,

and often unmindful of the demands of nature. There is also with this marked lessening of motility, and this mental dulness, a corresponding visceral inactivity.

"In these cases, for three months past, we have given phosphorus made up after the following formula, which is essentially the same as used by Drs. Anstie, Radcliffe, and others: ℞. Phosphori, gr. xxxij; Pulv. acaciæ; Glycerinæ, āā ℥ss; Aquæ, ℥vj; Pulv. ext. glycyrrhizæ; Pulv. rad. glycyrrhizæ, āā ℥iss.

"Melt the first three ingredients in a closed porcelain vessel, and stir until the phosphorus is finely divided, then add the other ingredients and divide into 960 pills; these are afterwards coated with collodion. The principal thing to be observed is, that the phosphorus be very finely subdivided, so it may not cauterize the walls of the stomach.

"One pill was given after each meal, and the respirations, temperature, and pulse were taken and carefully recorded three times a day. This record was kept for one month in each case, and the table thus constructed showed the following results: One hour after the pill was given, the temperature was raised from one-half to three-fourths of a degree, and the patient experienced a sensation similar to that of slight alcoholic intoxication. Toward the close of the month in each case, the temperature became more uniform and found its level at ninety-eight and one-half degrees, while, before treatment was begun, it varied from one-half to one and one-half degrees at different hours of the day. The pulse was accelerated from ten to fifteen beats per minute by the same dose, and during the month became more uniform and full, while the sphygmographic trace showed a deeper and less tremulous downward stroke. There was no perceptible change in the respirations.

"Frequent examinations of the urine were made before and during the time of administering the drug. As, in cases of increased muscular activity, the urea excreted is more abundant, so it was found that in the more acute forms of insanity the daily excretion of phosphorus often reached thirty and thirty-five grains. In the state of dementia following this, the amount was from fifteen to twenty grains daily. The average amount excreted by a healthy adult being about twenty-two grains, with, of course, slight variations due to changes in diet. These analyses seem important, in showing a direct relation between the amount of wear and tear being sustained by the nervous system, and the amount of phosphorus excreted, and as giving a very good hint to the appropriate treatment.

"Upon the administration of the drug to these cases of dementia, the amount of phosphatic matter excreted, uniformly approached the normal standard, and there were marked indications of mental improvement. Large doses, such as one-third to one-half grain, seemed only to irritate the stomach and to be carried off by the kidneys, and it was thought best in each case to return to the original small dose.

"In three of the fifteen cases under treatment, the stomach became so much deranged that the dose was first lessened and finally stopped altogether. These patients complained of a weight and oppression in the hypogastrium, and sometimes of a burning sensation, after the ingestion of the drug. In two of these cases, both dyspeptic, these symptoms were undoubtedly genuine, while the third complained only after opening a pill, thus discovering the nature of the remedy.

"In the doses used it produced no immediate symptoms other than those already mentioned, but the nervous system which had become so impaired or debilitated by the acute attack, through which the patient had so recently passed, slowly manifested increased vigor, and gradually regained its normal condition. This improvement was probably due to the more abundant supply of the phosphatic element supplied to the nerve tissue. Its action upon the nervous system appears equally as striking and definite as that of iron upon the blood.

"The experience of Dr. Anstie and others, published during the past year, 'On the Treatment of Neuralgia,' etc., by large doses of solid phosphorus, shows that it can be safely administered, which has been fully justified by our

own experience. We have observed none of those disagreeable symptoms mentioned by most writers upon the subject, such as albumen, or blood, or casts in the urine, neither jaundice nor vomiting. From the literature of the subject as well as our own observation, we are led to believe that the best results have been attained from its use in small doses, and continued for a long time."

—

Lancing the Gums.

Dr. James Finlayson, in a very elaborate and learned paper *on the Dangers of Dentition* (*Obstetrical Journal of Great Britain*, Dec. 1873, Jan. and Feb. 1874), states that the tendency of opinion at present seems to assent to Dr. West's dictum, that "the circumstances in which the use of the gum lancet is really indicated are comparatively few."[1] Rilliet and Barthez could only recall one case in which any real benefit resulted from the operation, and the best Trousseau could say of it was that the practice was useless. Even the most sceptical, however, seem to have encountered rare cases where convulsions ceased on the lancing of the gums;[2] such results are also obtained at times from other most unlikely remedies. It may here be stated that in his careful study of 102 cases of infantile convulsions, Dr. Gee could find no reason to believe that teething bore any part in the causation of the fits, and in none of the cases did it seem necessary to lance the gums.[3]

But it may be said, although the benefit may be very doubtful, why hesitate to give any child the chance of profiting in its peril or suffering by such a simple operation? It is very probable that this idea regulates the conduct of many in dealing with infantile disorders. Such a proceeding has very properly been stigmatized as "nothing better than a piece of barbarous empiricism, which causes the infant much pain, and is useless or mischievous in a dozen instances for one in which it affords relief." It may, however, be well to consider shortly whether the absence of danger from lancing is so complete as is usually represented. And here we may call in evidence the great modern upholder of the practice—Marshall Hall—himself. He was much too consistent an advocate of his own views to ignore the danger of such frequent tampering with the mouth and gums of an excitable infant as he had himself recommended, and he admitted this disturbance as a real and true objection to the use of the gum lancet. Such a course of treatment is indeed well calculated (as an American physician says) to "make your child your mortal foe." But this objection—no trivial one when fully considered—is not all. Local disasters have also happened. Passing by as doubtful any injurious influence on the ultimate growth of the teeth, suppuration and ulceration of the gums, and even gangrene, are admitted by its advocates to have been seen after this operation. Dangerous or fatal hemorrhage from lancing the gums, although not likely to be readily recorded, has been published in several cases. Even M. Baumes admits the danger from hemorrhage in incising the gums when much engorged; and he points out that the swallowing of the blood may conceal the extreme peril of the infant. Hamilton, although he had never seen a death from this cause, heard of one on evidence which he could not controvert. Dr. Churchill admits that bleeding from the wound has sometimes been excessive, requiring pressure, astringents, and caustics. Rilliet and Barthez have known it to require plugging. Dr. B. W. Richardson speaks of having "had two or three very painful lessons of this description," and mentions one death occurring to a country practitioner, and another accident with nearly fatal syncope in his own dispensary practice. Dr. Young, of Edinburgh, narrated a few years ago

---

[1] C. West, "The Diseases of Infancy and Childhood." 5th Ed. London, 1865. P. 555.

[2] A. Jacobi, M.D., "Dentition and its Derangements." New York, 1862. "I must confess that once or twice in my life, not oftener, I have observed the instant termination of an attack of convulsions after I lanced the gums." P. 171.

[3] S. Gee, "On the Convulsions in Children." St. Bartholomew's Hospital Reports. London, 1867. Vol. iii. p. 110.

two deaths which occurred in his father's practice. Fatal hemorrhages have also been reported by Taynton, Anderson, Whitworth, Des Forges, and Nicol, and in only one of these cases was there supposed to be any special hemorrhagic tendency. Further scrutiny of these cases shows, as we might expect, that nearly all the deaths were reported under exceptional circumstances, so that many more disasters have doubtless occurred, and have been allowed to slip into oblivion. Without laying undue stress on these perils and calamities, occurring as they do amongst such an enormous number of operations, they may well be seriously considered *when the generalization of the treatment is contended for on the ground of its absolutely innocuous character.*

—

Sarcoma of the Pleura.

Dr. Gordon read to the Medical Society of the College of Physicians of Ireland (*Irish Hosp. Gaz.*, April 15, 1874) the notes of an obscure case of malignant disease in the thorax, of which the following is an abstract: A young woman, aged 20, who had enjoyed good health up to five weeks prior to her admission, on the 28th February, was then found to have all the physical signs of right pleural effusion. The dulness on percussion extended to the right side of the sternum, and the heart was displaced downwards, and towards the left side. Thoracentesis was performed, and ninety ounces of reddish serum were drawn off. Temporary improvement followed this operation, which was repeated on the 7th March, and again on the 21st March, when sixty and seventy-five oz., respectively, were drawn off. Mercurials were administered without effect, and also diuretics, and the patient died on the 30th ult. On *post-mortem* examination, eighty ounces of the same reddish serum were found in the right pleura. A large tumour completely filled the anterior mediastinum. This mass presented the appearances of what used to be called cerebriform cancer; it grew from the pleura, and was composed of small, separate tumours. No portion of the pleura was healthy; the lung—much compressed, but healthy—was displaced into the cone of the pleura. The growths were in a very vascular condition. Dr. Gordon referred to Dr. Stokes' observations on the existence of two forms of intra-thoracic cancer, viz., (1) That in which there is cancerous infiltration of lung—a form which it is often impossible to diagnose; and (2) Where a tumour encroaches on the lung, which form of disease ought generally to be diagnosed. In Dr. Gordon's case, however, there was no evidence of any pressure on the bronchial tubes or veins; and the amount of fluid in the chest, pressing up from below, and joining in with the tumour, rendered, perhaps, diagnosis impossible. The reddish serum which was drawn off, made the case appear like one of hemorrhagic pleurisy; but a passage from Trousseau's *Clinique Médicale* (tome i. p. 667) was quoted, from which it appeared that that celebrated physician had diagnosed a cancerous pleurisy from a similar appearance of the fluid. In the present case, thoracentesis was rendered necessary, more from the pressure on the heart than from the dyspnœa. The most interesting points in the case were, the youth of the patient, and the rapidity of growth of the disease.

—

Aneurisms caused by Emboli.

Ponfick (*Virchow's Archiv*, vol. lviii. p. 528), after alluding to the permanent local effects of transported emboli, considers the possibility of peculiar physical alterations being produced by benignant emboli. He found a recent perforation of a small, arachnoidal artery and the adjacent membrane, with an embolus partly within, partly without the vessel. Also, a calcified body in a small sac connected and communicated with a similar vessel. Further, a centripetal arterial dilatation in connection with an adherent embolus, and an aneurism connected with the splenic artery containing a small, white body. These appearances were observed in a case of recurrent, aortic endocarditis with numerous, in part calcified, vegetations. A relation of cause and effect was suspected, and for the past two years, while assistant at the Berlin Pathological Institute,

he has examined bodies with reference to this point. Six analogous cases have been found, and a coincidence between valvular endocarditis and the formation of aneurisms was established.

The histological structure of the aneurism showed that, as a rule, the wall was new-formed, and not a simple, locally-expanded adventitia. The usual sources of aneurism were eliminated by negative evidence. Positive, were a recurrent, verrucous endocarditis of the left side of the heart, with vegetations in part calcified; arterial obstruction by vegetations and calcified bodies which must have originated from the valves; in several instances, these had perforated the wall of the vessel to a greater or a less degree, or were found entirely, or in part, in the aneurismal sacs. He considers that the emboli produced the aneurisms, on the ground of the rigidity and density of the emboli, their irregular, jagged surface, and the sharpness of their ends. As a result of the latter characteristics, the vessel is only partially obstructed, and, consequently, the amount of blood passing through, diminished in volume, has an increased velocity; thereby the rigid body is pushed further into the wall.

Theoretically, there is no objection to the idea of softer clots leading to a perforation of the wall of the vessel, the other conditions being present. The seat of the embolus is most essential, it being always immediately beyond the point of division of an artery. Considerable importance is attached to the condition of the surrounding parenchyma, which was found to possess a slight degree of density (brain, fat tissue), therefore affording less resistance to the blood pressure.

Ponfick also considers that an acute aneurism of the heart may result from the repeated blows of vegetations attached to the semilunar valves against the parietes of the heart. This would be favoured by a retraction of the valves, producing insufficiency. So with the valvular aneurism, the most frequent cause of the acute, partial aneurism of the heart, the cardiac ulcer of Rokitansky.

The common factor in the origin of these conditions is an abnormal body in the blood current, which has originated from successive deposits from the blood, and which is pressed against the wall with rhythmical regularity by the force of the circulation. A necrosis of the wall occurs, blood is forced through this part into the region beyond, and, finally, a saccular tumour results, in permanent communication with the bloodvessel.—*Boston Med. and Surg. Journal*, April 23, 1874.

—

Treatment of Dyspepsia.

In an excellent lecture published in Volkmann's *Sammlung Klinischer Vorträge* (No. 62), Professor Leube, of Jena, discusses the causes and appropriate treatment of that large group of symptoms by which all diseases of the stomach, whether they arise from severe organic changes or from a simple catarrh, are more or less accompanied, and which has received the time-honoured name of dyspepsia. He first considers the question of their dependence on alterations in the relative proportions of acid and pepsine in the gastric juice, and comes to the conclusion that in the majority of cases in which such quantitative alterations have occurred it is the acid which is present in too small a quantity, and not the pepsine. A small quantity of pepsine can, like other ferments, act on an indefinite quantity of nutritive material, though digestion goes on quicker in proportion to the amount of pepsine present. On the other hand, if the acid (hydrochloric, or perhaps lactic) be deficient in quantity in the gastric juice, digestion is enfeebled, or stops entirely. The method adopted to determine these facts was the following: Patients were made to fast for a few hours and had twenty-five grammes of Carlsbad salt given them to assist in clearing out the stomach as much as possible. Then, at midday, a short time after they had eaten some dry cold meat, with or without mustard, some of the contents of their stomachs were removed with a sound, and examined as to their odour and reaction, and also as to the extent to which the digestive process had advanced. A specimen of each patients' gastric fluid was then filtered and divided into three parts, which were placed

in three flasks of equal size, to the second and third of which two drops of hydrochloric acid, and of a neutral pepsine solution, were respectively added, the first being left without anything added to it. The time was then noted which the fluid in each flask took to digest a piece of boiled fibrine of similar size at a temperature of from 35° to 40° C. The general result of many experiments was that the fluid in the first and second flasks—those without and with added pepsine—had almost exactly the same digestive power, and the solution of the fibrine went on quite slowly; whereas in the flask to which acid had been added the fibrin was usually entirely dissolved in from twelve to twenty-four hours. Dr. Leube therefore considers that he is justified in recommending the more extended use of hydrochloric acid in the treatment of dyspepsia, especially as his own results in practice support his theoretical views. He orders eight drops of the acid in half a wineglassful of water an hour after meals, and in severe cases gives it again at the fourth hour.

With regard to dyspepsia from so-called acidity—*i. e.*, the acid in excess—Leube expresses himself doubtfully; for in many cases where vomited matters have a sour smell they are not necessarily acid. He speaks, for instance, of a case of dilated stomach, whose contents had a neutral reaction, though they smelt fearfully sour. Even the presence of acid in excess does not contra-indicate the use of hydrochloric acid; for the acids on which it probably depends—the acetic and butyric—are useless for digestive purposes, while even the lactic does not act in combination with pepsine like the hydrochloric; it does its work slower, and much larger quantities are required to obtain the same results.

Dyspepsia due to excessive secretion of mucus (which acts as a ferment and gives rise to the production of useless acids, such as those above mentioned, besides carbonic acid) should be treated by alkalies—*e. g.*, the bicarbonate of soda—which not only neutralize these acids, but excite, if given in considerable quantities, a flow of normal gastric juice.

Changes in the quantity of the gastric juice as a whole, arising in persons with so-called torpid digestions, are difficult to treat. Here the irritation of the food alone is insufficient to excite the secretive action of the gastric glands, and so attempts are made to increase the flow by taking highly seasoned dishes, spices, and such-like. These cases require much patience in their treatment. The use of irritant foods must be discontinued very gradually, and their place be filled by ether, alcohol, and bitters, but especially by cold water and ice, for these excite a reflex flow of saliva, which, when swallowed, acts as a most powerful stimulant to the gastric mucous membrane.

It is well known that for digestion to go on properly the peptones which have been produced must be continually removed by absorption, to allow the undigested residue to come into contact with the stomach-walls and with the gastric juices. It is probably owing to this removal not taking place quickly enough that some of the digestive troubles in chronic catarrh of the stomach arise, and Leube considers that it is the main cause of many cases of dilatation of the stomach which are uncomplicated with pyloric stricture. Even where the latter exists, owing to the cicatrices of ulcers or to cancerous growths, the whole dilatation does not always depend on the stricture, for the pylorus is not unfrequently found (post mortem) not to be so contracted as it should be relatively to the amount of dilatation of the stomach.

Leube lays great stress on the use of the stomach-pump or of a syphon-sound, both for the diagnosis and treatment of this affection. The habitual removal of the contents of the stomach checks the dilatation, and permits the organ to recover its size to a certain extent. The stomach should be regularly washed out every day, the patient's allowance of fluid limited as much as possible, and small pieces of ice or fruit-ices given instead. Solid food should be taken only in small quantities at a time. Leube thinks that hot poultices to the epigastrium benefit catarrhal and inflammatory processes in the stomach, just as they do other chronic inflammations—*e. g.*, pleurisy and peritonitis—elsewhere, by promoting the absorption of inflammatory products. In severe cases he gives the stomach perfect rest for a time by means of his enemata of meat and pancreas. Probably galvanism is useful in some forms of dilatation of the stomach, by its

action on the muscular coats; for muscular movement brings fresh surfaces of food in contact with the digestive secretions, as well as fresh peptones with the stomach-walls, while there can be little doubt that the contraction of the muscles assists the circulation in the veins and lymphatics, and so helps to remove absorbed products.

In conclusion, Professor Leube discusses the best form of diet for dyspeptic patients, and insists on the maxim that "for a sick stomach there is no better diet than rest." However, it is not necessary to adopt such a maxim literally in most cases of dyspepsia, involving, as it does, the exclusive use of enemata; ordinarily, we may content ourselves by giving "easily digestible" food by the mouth. The relative digestibility of different foods has occupied the attention of many observers, without even yet being satisfactorily understood. We want still to know more of the relative share which is taken by the different parts of the alimentary canal in the process of digestion. It is not at all desirable that a dyspeptic patient should have food ordered him which is only digestible by the stomach. Foods which by their consistence and form mechanically irritate it do not cause so much harm to it as foods on which the gastric juice cannot act easily, and which therefore remain long in it. Individual constitution and the nature of the particular disease must be also considered in deciding on forms of diet.

It is probable that young veal, chicken, pigeon, boiled fish, and underdone beef are the most suitable foods for most patients—of course, with the exception of milk and eggs, which are the most digestible of all. Meat should be underdressed, not only because it becomes tough by much cooking, but because Fick has recently shown that the same gastric juice digests cooked meat three times as slowly as raw. Eggs should be taken soft-boiled, and not raw, for Leube has found by experiments on himself that their albumen is more easily digested when cooked than raw; and Fick has also shown that there is at any rate no advantage in the uncooked form over the cooked so far as digestibility is concerned. Fat sauces must be abstained from, because they shield other food from the action of the gastric juice. The only vegetables which Leube allows are asparagus, young peas, and carrots and mashed potatoes. Bread he gives stale. He usually forbids all alcoholic liquors. If none of the foods just mentioned agree, he gives his patients an extract of meat, or rather a peptone solution, prepared by the action of acid on meat *in vacuo* at a high temperature. A fine emulsion is produced, which has a slimy consistence and a pleasant taste, somewhat resembling Liebig's extract, but it differs from the latter in containing all the constituents of the meat. This extract is easily digested, and is tolerated by the most irritable stomachs. Patients with gastric ulcer lose their pains from the day they begin to take it. Of course the use of such an extract is not restricted to diseases of the stomach. It is indicated wherever an absolutely unirritating food is required—for example, in typhoid fever, dysentery, tubercular ulcerations, and peritonitis. The best extract is prepared by Dr. Mirus, of Jena, and Professor Leube would be glad if those medical men who make an extended trial of it would publish the result of their experience.—*Med. Times and Gaz.*, May 9th, 1874.

—

Perityphlitis.

Dr. Bull publishes in the *New York Medical Journal* (Sept. 1873) an inaugural thesis on this subject, to which the Faculty of the College of Physicians and Surgeons awarded a first prize. It contains a summary of almost all that is known of this disease, as regards etiology, anatomy, symptoms, and prognosis. But the best part of the treatise is the remarks on treatment, which appear to be not only judicious but worthy of quotation, at least in part. After enjoining absolute rest, and the avoidance of purgatives, as in typhlitis, together with a well-regulated diet, the use of opiates, ice, and carbonic acid in solution to check vomiting, Dr. Bull proceeds [his remarks are here somewhat abridged):—

"When the suppuration occurs, it must be hastened by warm applications, poultices, etc., to the tumour; and opium and the same general measures should

be continued as before. Formerly this plan of treatment was pursued until the abscess pointed externally, when it was opened, or burst in some other direction.

"Within a few years, however, the practice of opening these abscesses at once, without waiting for the appearance of fluctuation, has been adopted by Professor Willard Parker, of this city, and employed with success by himself and others. The propriety of the early opening of these abscesses was discussed by the earliest writers on this subject. Dupuytren was averse to the operation, because of the frequent occurrence of opening into the cæcum, and its happy results. Grisolle favoured it, as he observed that two out of ten cases in which opening into the cæcum occurred ended fatally, and that evacuation of the pus by the natural passages was often followed by external opening and death. Velpeau advised early evacuation of these abscesses; and Battersby, in his complete review of the subject of iliac abscesses, recommended it. Dr. Martin, of Lyons, in 1835 advised the application of caustic potash. Bourienne relates a case, in which a surgeon cut down to evacuate the pus, found none, was much laughed at, but the next day a free discharge took place through the wound, and the patient recovered. Mr. Hancock (*Lancet*, Sept. 30, 1848) opened such an abscess, and recommended a similar proceeding in all such cases. Dr. Willard Parker again called attention to it, and successfully treated a case in this way. Further study of the disease gives us additional and even stronger reasons for the adoption of this plan of treatment. When the abscess opens externally, we find the danger to life from exhaustion to be extreme. Even when the pus has been discharged into the cæcum, suppuration has been prolonged till death ensued, and subsequent opening, either externally or into other organs, has occurred with fatal results in one-half the cases. Pyæmia is seen to be a not infrequent complication, doubtless induced by the thrombosis of large veins encroached upon by the growing abscess. Empyema, fatal hemorrhage from the erosion of large bloodvessels, perforation of almost every hollow abdominal and pelvic viscus, are all complications which arise from allowing these abscesses to run their course unmolested: all may be avoided by giving vent to the pus before it accumulates in sufficient quantity to render liable the occurrence of any of them. Dr. Stiegle (*Würtemburg Correspondenz-Blatt*, vol. xi.) reports two cases, and Dr. Weber one. Of the six cases thus collected, in which, on the evidence of the symptoms, and the presence of the tumour, and without perceptible fluctuation, the abscess has been opened, five have been followed by recovery. In the one fatal, the patient was exhausted before the operation was resorted to. The knife is undoubtedly the best instrument for evacuating these abscesses." Dr. Bull discusses the objections to the use of Vienna paste and puncture with a trocar; but inclines to the use of the aspirator, or even a second or third trial of this instrument. A table of the six cases referred to, two by Dr. Parker, one by Dr. Weber (*New York Medical Journal*, August, 1871), one by Dr. Stiegle, and one by Dr. Kottmann, is appended: the pamphlet contains also almost a page of bibliography.—*London Med. Record*, Jan. 28, 1874.

—

Statistics of Intussusception.

Dr. O. Lichtenstein, of Tubingen, has collected and compared the statistics of 593 cases of intestinal invagination (*Vierteljahrschrift für praktische Heilkunde*, and *Medicinisch-Chirurgische Rundchau*, January, 1874), and has arrived at the following results. A. *Fequency according to Age and Sex.* 1. Inflammatory intussusception occurs more frequently (the average being 28 per cent.) in males than in females; the proportion being 1.8 to 1.0. 2. Inflammatory intussusception occurs most frequently in the first year of life (131 cases). It is at this time six times as frequent as in the second year (22 cases), and thirteen times as frequent as in the third, fourth, and fifth years (each 10 cases). The frequency rapidly diminishes in the sixth year; it then remains nearly stationary between the sixth and fortieth years, and then increases, especially after the fiftieth year. 3. This disorder is very rare under the age of three months; it occurs most frequently between the fourth and sixth months

of life. B. *Seat of Intussusception.* 4. The most common form of intussusception is the ileo-cæcal; then follow, in order of frequency, intussusception of the small intestines and the colic and ileo-colic forms. 5. *a.* Ileo-cæcal intussusception predominates in childhood up to the tenth year, especially in the first year of life. It decreases in frequency with increasing age. *b.* Intussusception of the small intestines is very rare in the first year of life, and increases in frequency afterwards, especially after the fifth year. In adults, this form of intussusception is rather more common than the ileo-cæcal. *c.* Invagination of the colon is more frequent in children than in adults; but it occurs more rarely in the first year than between the second and tenth. 6. The most usual seat of primary invagination of the small intestines is the lowest part of the ileum. It occurs very rarely in the middle of the ileum, but more frequently (though less so than in the lower part) in the jejunum and highest part of the ileum. 7. The most frequent point of primary intussusception of the colon is the lower part of the descending colon, or the sigmoid flexure. 8. The proportion of males to females in ileo-cæcal intussusception is 2.3 to 1; in intussusception of the ileum, 1.9 to 1; in ileo-colic intussusception, 1.7 to 1; and in invagination of the colon, 1.5 to 1. C. *Relations of Extent and Growth in the Seat of Intussusception in different Regions of the Intestines.* 9. As regards the size of intestinal invaginations in the adult, those of the ileum occupy on an average the first place, immediately followed by the ileo-cæcal and the colic forms. Intussusception of the ileum through the ileo-cæcal valve is generally of very small extent. Ileo-cæcal intussusceptions in early childhood increase more rapidly, and attain a relatively greater length, than in adult age. On the other hand, ileo-cæcal intussusception increases more slowly, and differs greatly in this respect from invagination of the ileum, which increases rapidly. D. *Ascending or Retrograde Invagination*, of the acute or inflammatory kind, occurs very rarely; it is found in the small as well as in the large intestines. E. *Multiple Invaginations* are rare; but credible cases of acute double and, more rarely, of triple invagination (forming five or seven layers) have been recorded. These have hitherto been met with only in the large intestine, and, with one single exception, in cases of primary ileo-cæcal intussusception; never in the small intestines. F. *Lateral or Partial Intussusception.* Pouch-like invaginations of a greater or less portion of the intestinal wall into the canal are usually the result of polypi of the mucous membranes; these produce first lateral invagination, which, by continued traction, is enlarged and becomes central. This form is very rare. G. *The Origin of Internal Hernia and Obstruction from Intussusception* occurs in two ways. 1. In cases of ileo-cæcal intussusception, the mesentery of the ileum becomes unfolded and lies parallel with the meso-colon at the point of invagination, so that a pouch of greater or less depth, with a wide opening, is formed. This cleft may be drawn open by the dragging of the mesentery and meso-colon, so as to allow the passage into it of more or less of the intestine lying above the intussusception. 2. In ileo-cæcal, and perhaps also in colic intussusception, it sometimes happens that a loop of the upper ileum, or of the jejunum or ileum, passes between the middle and inner cylinders of the invaginated portion. In such a case, the primary intussusception must evidently have attained a considerable size.—*British Med. Journal*, Feb. 14, 1874.

—

Benzoic Acid for Ammoniacal Urine.

Prof. Gosselin and M. A. Robin read at the meeting of the Académie des Sciences, January 5, a short paper "On Ammoniacal Urine: its Dangers, and the Means of Preventing these," in which they detailed some experiments which they had performed upon rabbits and guinea-pigs for the purpose of determining how far ammoniacal urine is poisonous when entering the economy by a wounded surface. By the subcutaneous injection of aqueous solutions of carbonate of ammonia, death, preceded by convulsive and tetanic accidents, was produced; but when a solution of the ammonia in urine, or ammoniacal urine itself procured from a patient, was employed, the animals died with febrile

symptoms analogous to those of urinary fever, without any nervous symptoms having been induced. Other experiments were pursued at the same time, employing human urine in a normal condition as the fluid injected (eight grammes daily), without any ill effect whatever being induced.

The conclusion drawn is, that human ammoniacal urine is toxical for the rabbit and guinea-pig, and that, if absorbed through a solution of continuity in the urinary passages, it would probably prove toxical to man also. It becomes of importance, therefore, to correct this state of the urine, not only because it favours the formation of phosphatic calculi, but because, in case of injury to the urinary passages, there is also danger of urinary poisoning. Benzoic acid, which has been shown by Ure and Keller to be rapidly transformed into soluble hippuric acid, which is inoffensive, would seem to be a suitable agent for this purpose, and the authors refer in their paper to three cases in which it was administered. Two of the patients were subjects of urinary calculi. In the first of these, the urine, which was very alkaline and ammoniacal, was, prior to the performance of lithotomy, rendered neutral by the administration of from one and a half to two grammes of benzoic acid daily, suspending it in a mucilaginous mixture or in water. After the operation the urine became acid, and the patient did very well. In the second case, the urine became ammoniacal after the third lithotrity *séance;* but after taking two grammes of the acid daily for a week, it became acid. The acid had to be resorted to after one of the other *séances*, the whole of which (eight in number) took place by its aid, with the urine in an acid condition. The third patient, the subject of stricture, supplied the urine which killed the animals referred to above, and which contained from four to six grammes of ammonia per litre. Twenty days' employment of the acid reduced this to one gramme per litre, and the comparative innocuity of this urine was shown by injecting five or six grammes daily for six days into a rabbit, without producing any ill effect. The authors believe that benzoic acid, and perhaps other vegetable acids, should be prescribed for patients suffering from ammoniaco-purulent cystitis, and especially for those of them who have to undergo operations on the urinary passages.—*Med. Times and Gaz.,* Feb. 7, 1874.

—

Bromide of Potassium in Albuminuric Convulsions.

M. Gimbert brought before the Société de Thérapeutique the particulars of a case of albuminuric convulsions, as exemplifying the utility which may attend the administration of large doses of the bromide of potassium in this disease. He observed that medicinal substances not infrequently lose their reputation in consequence of the exaggerated manner in which they are employed; and this has been somewhat the case with the bromide. Still, there are circumstances in which doses which usually would be regarded as excessive prove of great service. The case in question occurred in the person of a man thirty-five years of age, who until 1870 had always enjoyed good health. He then became the subject of undefined pains in the back and chest, which were regarded as rheumatic. In January, 1871, he was found to be suffering from chronic pleurisy, and three litres of albuminous fluid were removed by the aspirator. After apparent recovery, he was attacked at the end of November by acute albuminuria, which two days afterwards was attended with convulsions, which after fourteen hours' duration yielded to mild venesection; he remaining, however, for a week insensible. Early in 1872 he came under the author's care at Cannes, and again suffered from pleuritic effusion and the passage of large quantities of albuminous urine. We need not pursue the details of the case; it sufficing to say that on March 6 the patient had another fearful attack of convulsions, which for some hours threatened his life. Owing to his anæmic condition, it was not thought prudent to employ bleeding or chloroform, and the bromide was therefore administered in ten-gramme doses per anum, as trismus prevented this being given by the mouth. This proved successful in relieving the convulsions, although the patient died seventeen days afterwards with symptoms of uræmia. In this case twenty-four grammes of the salt had to be administered

before the convulsions were arrested; but this is a quantity far less than the doses which have been employed by MM. Huette, Puche, and others.

In the discussion which followed, M. Bucquoy observed that he had long employed the bromide in the treatment of albuminuric convulsions, and usually had very good reason to be satisfied with it. He sees a great number of cases at the Cochin Hospital, which he attributes to the fact of there being numerous tanneries in its vicinity, the workmen employed in these being subjected to high temperatures and subsequent chills. He first resorted to this treatment in a case of very bad albuminuric eclampsia, in which the administration of eight grammes was followed by speedy recovery. Since then he has tried it in a considerable number of cases, and mostly with success. He thinks the bromide is preferable to venesection, which enfeebles the patient, and renders convalescence tedious; while some patients are in too exhausted a state to admit of its employment. Saturnine eclampsia, also, yields just as readily to the bromide. M. Bucquoy gives two grammes at a time, never exceeding ten grammes in the day.

M. Moutard-Martin cautioned his colleagues against such large doses as from twenty to thirty grammes per diem, which have been recommended. Trying the drug upon himself in doses of two grammes, he found that he could reach eight grammes a day without ill effect, but when he had attained ten grammes he experienced collapse and vertigo. Still, he pushed it on to twelve grammes, when true drunkenness ensued. Next day, however, he was all right again. In one case, however, he gave fifteen grammes per diem for a spasmodic cough, which had lasted eight months, and had brought on epileptiform seizures. This dose was kept up for eight days in succession, a kind of tolerance thus becoming established. When a large dose is suddenly administered, accidents promptly ensue, which, however, are soon dissipated again. M. Constantin Paul did not think large doses should be feared, for he had seen M. Puche give forty or forty-five grammes per diem without any ill effect. Moreover, acute bromism is not dangerous, and the symptoms soon pass away. As to small doses, such as two or three grammes, taken continuously, they only debilitate and fatigue the patient. M. Paul pays little attention to the accidents, which seem to do no harm to the patients, especially the epileptics. Bromide of ammonium is more active, and not more than four grammes should be administered. M. Bucquoy protested against M. Puche's practice being cited in approval of very large doses, for his patients suffered from vomiting, and were in a distressing condition.—*Med. Times and Gaz.*, March 21, 1874.

—

A Peculiar Form of Skin Disease in Children.

Uffelman (*Archiv für Klin.-Medicin* x., s. 454) describes the characteristics of a peculiar disease of the skin, occurring in children from four years and a half to twelve years and three-quarters, of which he has in ten years observed fourteen cases. Eleven were girls, and three boys. All showed signs of scrofulosis, and were the children of scrofulous parents, but were free from syphilis. The disease manifests itself by elevations resembling chilblains on the legs below the knee, and to some extent also on the forearms. These are somewhat tender on pressure, but otherwise not painful nor itchy. There is slight swelling of the skin around them, but no œdema, redness, nor local elevation of temperature. They are not movable under the skin; do not desquamate; get well spontaneously; and can be felt for eight days or more after they cease to be visible. Although the temperature of the body never rises more than one degree centigrade, yet the urine is dark and the appetite very much diminished. The children are very pale and languid. Three of the patients died some years afterward of tuberculosis.—*Med. Times and Gaz.*, Jan. 17, 1874.

Surgery.

On the Treatment of Wounds.

The treatment of wounds is one of the great questions of surgery of the present time, and Dr. R. U. Kroenlein's book (*Die offene Wundbehandlung, nach Erfahrungen aus der Chirurgischen Klinik zu Zürich.* Zürich, 1872) is a valuable contribution to the efforts made by modern surgeons to answer this question in a satisfactory manner.

The method of open treatment of wounds was first recommended in Germany by Bartscher and Vezin, and has afterwards been advocated by Professor Burow, of Königsberg.

Dr. Kroenlin compares two well-marked periods, where different treatment has been adopted in the surgical wards of the hospital of Zürich: 1. The period of 1860–1867, under the direction of Professor Billroth. where the wounds were covered in an ordinary way. 2. The period of 1867–1871, under the direction of Professor Rose, where the open treatment was executed in a thorough methodical manner.

In order to have some categories for comparison, he has selected out of the whole number of surgical patients the following classes of cases: 1, amputations; 2, extirpations of the mamma; 3, compound fractures; 4, accidental surgical diseases.

The results of the two series were, as regards mortality per cent., as follows:—

	First Period.	Second Period.
Thigh	86.1	35.7
Leg	58.3	18.1
Foot	35.2	20.0
Upper-arm	55.5	14.0
Fore-arm	16.6	0.0
Hand	0.0	0.0

Critical researches by the author show, that this remarkable result was due neither to the age and sex of the patients, nor to the method of amputation. but entirely to the after-trreatment.

The bleeding vessels were carefully tied. Secondary hemorrhage occurred less in the second period than in the first; but, corresponding to the greater number of ligatures, healing by first intention was more rare in the second. Necrosis of the stump occurred in the first period only in 21.3 per cent. of the cases; in the second in 32.7 per cent. Retention of pus was observed in the first period, in 11.4 per cent. of the cases; in the second only in 3.4 per cent. The time of healing was in general longer during the second period; amputations of the leg and the upper extremity required three weeks more for healing under the open treatment, while amputations of the thigh required nineteen days less during the second period.

The cases of extirpation of the breast had a mortality of 32.3 per cent. in the first period, and 13.6 per cent. in the second. The time of healing for this operation was 43 days, if treated in the ordinary way; 67 days under the open treatment.

Of the cases of compound fractures which were treated in the conservative way, 25.5 per cent. died in the first period; 21.5 per cent. in the second.

Of accidental diseases, there occurred pyæmia and septicæmia during the first period in 146 cases amongst the total number of 4000 patients; during the second period in 19 cases out of 2300; thus giving 3.65 per cent. for the first, and 0.8 per cent. for the second period. Respecting only those cases referred to in the above classes, viz., the amputations, the extirpations, and compound fractures, pyæmia occurred amongst the 260 cases of the first period in 22.6 per cent., amongst the 172 cases of the second only in 6.9 per cent.

Erysipelas more frequently occurred in general under the open treatment;

namely, in 148 cases out of the 7000 patients of the first period, or 3.7 per cent., and in 127 cases out of the 2300 patients of the second period, or 5.5 per cent. Notwithstanding, this disease was less often observed in the amputated of the second period (7.0 per cent.) than in those of the first (9.2 per cent.). Respecting the other categories, the first period showed an advantage over the second. Dr. Kroenlein thinks that ventilation, which was more energetically executed in the second period by opening the doors and windows of the wards, may have had an influence on the originating of this disease. The table of temperature of the wards sometimes shows a temperature of 40° to 50° Fahr. which, we must agree, may not only be disagreeable but also noxious to open wounds. However, the imperfect state of ventilating and warming institutions of the infirmary did not admit a higher temperature without corrupting the air.

There can rarely be a better opportunity of comparing two different methods and of proving what the effect has been than this; because, except the treatment, there was no change in the hospital as regarded the wards, beds, nourishments, ventilation, water-supply, and other arrangements.

The numbers referred to are large enough to refute the objection, that a greater number would perhaps have shown a different result; and notwithstanding in the first period there were 140 amputations, and only 85 in the second; and we may suppose that all the wanting 55 cases would have died, even then the result of the second period would not have been worse than in the first.

The advantages of the open treatment seem to be the following:—

1. There is no pressure or constriction by dressings.
2. An irritation of the wounds by changing the position and external applications is avoided.
3. There is no danger of infecting the wounds by impure articles.
4. The danger of retention of matter is small.
5. The state of the wounds may be controlled at any time by simply lifting the coverlets.
6. As healing by the first intention is given up, as many ligatures may be applied as are desirable, and thus secondary hemorrhage may be better avoided.
7. The air of the wards is not infected by emanations from the dressing, as is the case in other methods, except Lister's.
8. There is less need of material for dressings, therefore less expense.

It seems that these advantages will recommend the open treatment not only to large hospitals, where constant inspection by medical men is possible, and to medical schools, where regular observation of the wounds by the students is very desirable for instruction, but also for the practice of war, where the material for dressings is often bad and infected, or not to be got in a sufficient quantity.

There are two points in which the open treatment is certainly inferior to other methods, specially to Lister's antiseptic method, viz., the renunciation of healing by first intention, and the rather frequent occurrence of erysipelas. This latter, however, may be avoided by sanitary means. And if a surgeon think that healing by first intention is possible in a special case, he may adopt for this case any other method which he may think best.

Dr. Kroenlein, indeed, has done well to carry out the open treatment methodically and rigorously in all cases, because without this we should not have such an evident result from a statistical as well as a critical point of view.—*Lond. Med. Record*, April 1, 1874.

—

Neuralgia treated by Nerve-stretching.

Mr. Callender read before the Clinical Society of London notes of two cases of neuralgia. In the first, the affection, which involved a stump, seemed to be due to neuritis connected with symptoms of spinal cord irritation. The patient had undergone several operations for the relief of his symptoms, such

as amputation and the removal of portions of nerve; and, finally, the median nerve was forcibly stretched by pulling it down from the brachial plexus. No local trouble resulted from the operation; the patient was freed from the pain, and the symptoms of spinal irritation ceased.

Neuralgia treated by Amputation.—In the second case, the affection of the nerves, giving rise to persistent pain and defective nutrition, was entirely peripheral, and was due to the irritation set up by the entanglement of branches of the ulnar and median nerves in the thickened tissue, resulting from diffused suppuration in the hand. No evidence existed of spinal irritation; and, as the trouble seemed to be dissociated from any central cause, amputation of parts of the hands was resorted to, for the purpose of removing the indurated tissues which compressed the nerves. By this procedure, the patient, who had suffered for nearly two years, and who was admitted to have his arm amputated, was relieved of his pain, and preserved the thumb, index and middle fingers of the hand.

In both these cases, details were given of the symptoms, and their influence as determining the treatment was referred to; and, with regard to the stretching of the median nerve, the cases were mentioned in which a like treatment had been employed.

Mr. Barwell asked if Mr. Callender was correct in calling the disease neuritis; for, how should the mangling and stretching of such an inflamed part benefit the inflammation?—Mr. Callender remarked that the temperature was taken in each axilla twice daily during the progress of the case, and no difference was discovered. As regarded the patient originally in St. George's Hospital, it was first an acute case of thecal inflammation, and the neuralgic symptoms arose after the patient left Mr. Lee's care, from consolidation of the tissues around the inflamed part. Cases of surgical stretching of affected nerves had been amply illustrated by several writers. Billroth had had a young man under his care who had injured his sciatic nerve, and was subsequently an epileptic: the surgeon cut down and handled the nerve and cured the neuritis. Mr. Callender narrated other instances of nerve-stretching.—*Brit. Med. Journ.*, May 2, 1872.

—

Capillary Punctures in Glandular Swelling.

Prof. Crocq, of the University of Brussels, in a recent clinical lecture (reported in the *Presse Médicale Belge*, November 23) described the treatment which he has been in the habit of pursuing during the last ten years in suppurating glandular abscesses. Situated as these usually are in the neck, unsightly scars are often produced, even when they are treated as recommended by Velpeau—by a narrow puncture executed as soon as fluctuation is apparent, and repeated if necessary. Even this leaves a scar, which indeed may become very conspicuous when, as often happens, the little aperture ulcerates and becomes fistulous. Professor Crocq avoids these inconveniences in practising the puncture by means of a grooved exploratory needle or a fine exploratory trocar. Pressure is then made over the swelling so as to expel as much matter as possible. If the abscess is extensive, or the fluid does not issue freely, he makes two, three, four, or five punctures at different points, repeating them daily or every other day, either at the same or at other points. Sometimes it is sufficient to press the tumour somewhat firmly in order to secure the flow of the pus from one of the punctures already made. After some days the matter becomes less abundant and more serous, taking on a reddish tinge, which is a sign of an approaching cure. Sometimes there is now observed a more or less considerable soft and doughy swelling, which if punctured only yields a little blood and serosity. This swelling soon disappears, and the punctures, which at first remained as little reddish points, soon become pale, so that after the cure of the abscess no traces of them remain. This procedure is employed for acute abscesses as soon as fluctuation has become evident, and in chronic cases before thinning and detachment of the skin has occurred. But even when this condition exists it is not a contraindication, care being taken, however, not to puncture the most thinned portions of the skin, in fear of subse-

quent ulceration. After the punctures these parts fall in and retract, a depression as from loss of substance resulting; but in general this usually disappears with the lapse of time. Even if it did not do so its aspect would be far less repulsive than that of a cicatrix due either to a natural or artificial solution of continuity. Professor Crocq has never found ulceration succeeding these punctures. He points out that his plan is different from those of Mr. Lawson Tait and Dr. Lorentzer, which combine the employment of aspiration with minute puncturing; and he prefers his own as more simple and more efficacious.

He has also employed the same procedure in opening suppurating bubo, avoiding thus the disagreeable scars that are usually left. Applied in good time, when the collection has well formed, and before the skin has become thinned or detached, it always succeeds, except in the case of "chancrous bubo," when the presence of a virulent pus necessarily leads to ulceration. In the great majority of cases the bubo is a simple inflammatory tumour.

Any subcutaneous abscess which is not of very large extent may be treated in the same manner. Thus M. Crocq has frequently met with great success in treating abscess consequent on erysipelas of the face, and especially in the abscesses consecutive to variola, of which he met with a great number of cases during the epidemic of 1865.

Several cases are given in illustration, for which we have not space.—*Med. Times and Gaz.*, Dec. 20, 1873.

Paralysis of the Hand and Forearm caused by Esmarch's Bloodless Method.

Dr. Robert F. Weir reports (*Med. Record*, May 15, 1874) the case of a young man in whose case it was found necessary to excise some dead bone from his elbow-joint. On Feb. 13 Esmarch's bandage was applied, the rubber cord of a diameter of one quarter-inch being, as usual, tightly drawn three times around the limb at the junction of the upper and middle third of the arm, and the proposed operation performed.

The compression was continued about three-quarters of an hour, and the wounds made by enlarging the sinuses were dressed with charpie and gauze bandage.

After the inflammatory reaction of the wound had passed away, it was found that the patient was unable to flex or extend any of the fingers or the hand on the forearm. He complained of numbness in the tips of all his fingers, of the palm and anterior surface of the forearm. The motor paralysis remained unchaged to March 20, when he was kindly seen by Dr. Seguin, but the anæsthesia had yielded to hyperæsthesia in the dorsum of the fingers, though there was still abolition of tactile sensibility. The examination showed that the lesion was mainly confined to the median nerve. Since that time he has rapidly regained the use of the affected muscles under the use of the galvanic current.

Since recognizing in this way the possibility of such an accident, in the use of Esmarch's method, Dr. W. found in the *Medical Times and Gazette*, of Jan. 24, 1874, three cases reported by Langenbeck, where paralysis had occurred in the median nerve after the use of Esmarch's method. Two of the operations performed were for pseudo-arthrosis, and one for necrosis; the resulting paralysis in two cases lasted two weeks, and in the other case it had continued three weeks when he was discharged (cured presumably). Langenbeck, in consequence of this mishap, recommended that instead of using rubber tubing to compress the artery, an independent elastic bandage be used like those employed in forcing the blood out of the limb, and that it be fastened around the limb, after being drawn tightly, by a pin. In this manner the pressure on the nerve is distributed over a broader surface, and an injury of it more successfully avoided. The prolongation of the paralysis, in the case narrated above, is probably due to the narrowness and hardness of the rubber cord employed, as tubing flattens decidedly when applied, and makes thereby a broader pressure.

There is another situation where the same caution should be observed, and that is in the upper part of the leg, where the external peroneal nerve is readily accessible to pressure; though no instance of its paralysis has yet come to my notice.

It is possible, also, that accidents may result, in atheromatous patients, from the increased arterial tension produced by the forced addition of the blood belonging to a limb to the general circulation. Attention to this source of danger has been called by Mahomed, in the *Medical Times and Gazette* of August 9, 1873, in an article on the use of the sphygmograph in aneurism, in which he has shown that the general arterial tension is much augmented when compression is resorted to in the treatment of aneurism.

—

On the Action of the Continuous Current upon Opacities of the Vitreous Humour.

M. Carnus (*La France Médicale*, April 25, 1874) reports several cases in which the value of this plan of treatment is shown, and which corroborate the experience of Dr. Onimus during the last year or so, that the continuous current materially assists in the removal of opacities from the vitreous humour, as well as synechiæ resulting from iritis, by arousing and establishing a more active condition of the intra-ocular circulation. This result is best obtained when one pole is applied to the superior cervical ganglion, and the other to the upper eyelid. The strength of the current employed appears to be that of eight or ten cells, and was generally applied twice a week.

Case I. *Exudation into the Vitreous Humour from old specific Retinitis.*—Madame F., aged twenty-nine, had suffered from hemicrania on the left side for about a year, with diplopia and a convergent strabismus on the same side. When she came under observation, she had for some time been undergoing a course of anti-syphilitic treatment, but with little benefit. The field of vision was not diminished in either eye. After one or two applications of the current the pains disappeared, and at the end of a month the power over the external rectus muscle had returned. After a time the media regained their transparency, and the normal acuteness of vision was completely restored.

Case II. *Synechiæ from Syphilitic Iritis, and Opacity of Vitreous Humour.*—Madame L., aged twenty-eight, had complained of failing vision in the left eye for same months. She could just count fingers at ten feet, and could read No. 10 with difficulty. She had pain on both sides of the head at times. There were numerous adhesions of the iris to the capsule of the lens, and the vitreous humour was hazy from exudation. After eight sittings the pains disappeared, and the opacities in the vitreous humour had much diminished. At the end of eighteen sittings the adhesions had almost disappeared, and the vision was nearly normal.

Case III. Madame Ch., aged thirty-two, in 1872 had acute iritis, which left the pupil permanently distorted by extensive adhesions, but did not inpair the transparency of the vitreous humour. Under the influence of the continuous current twice a week for some months the pupil regained its proper shape, and the iris became free from adhesions and perfectly mobile.

Case IV. Sarah ——, aged twenty-three, an American, a painter by profession, was seized with violent facial neuralgia, which, however, left no impairment of vision. Five years afterwards, on her arrival in France, her left eye failed her while painting; her vision became clouded, the mist lasting several days; exposure to cold appeared to be the only exciting cause. She had occasional circumorbital pain; the vitreous humour was opaque, with numerous floating bodies, so that the optic disk could hardly be distinguished. The application of electricity was commenced on May 17, 1873, with eight elements—subsequently increased to ten—applied for two minutes. The treatment was persisted in up to July, when the vitreous humour had become so far clear that the disk was visible, and the vision had much improved. Unfortunately the treatment was here interrupted by her return to America.

Case V. Madame B., aged thirty-four, presented herself February 18, 1873, with keratitis and subacute irido-choroiditis; the keratitis existed in both eyes, with irregular pupils from synechiæ, and with patches of opaque tissue upon the anterior capsule of the lens. With the ophthalmoscope the fundus

could be seen with difficulty through the vitreous humour, which was turbid with pigmented opacities. With the right eye she could read No. 12 at nine inches; with the left eye, No. 8 at nine inches. The treatment employed consisted in the local application of calomel, and the continuous current. At the end of a week some of the synechiæ had disappeared, and her vision steadily improved, so that on April 14 with the right eye she could read No. 8, and with the left eye No. 1, at nine inches.—*London Med. Record*, May 27, 1874.

—

On a Form of the Disease of the Middle Ear in which the Local Application of Alcohol is especially serviceable.

Dr. J. Patterson Cassells, Surgeon to, and Lecturer on Aural Surgery at the Glasgow Dispensary for Diseases of the Ear, confirms (*Lancet*, April 25, 1874) all that Löwenberg, of Paris, claims for alcohol as a local application in certain diseases of the tympanic cavity. But as he has found it of especial value in the more advanced stages of simple catarrh complicated with a lesion of the membrana tympani, and as he believes that in such cases it is almost a specific, he fully describes the appearance of the tissue in this morbid condition. "This is all the more necessary as I fear that, when the use of this therapeutic agent becomes more general in aural medicine, it may fall into disrepute by its indiscriminate application in cases in which its use is either contraindicated or at least not likely to yield satisfactory results.

"The affections of the tympanum, out of which all other diseases of this cavity seem to develop themselves, are simple catarrh, muco-tympanitis, and tympanitis; but as I have already indicated that the use of alcohol appears to be more efficacious in an advanced stage of the first-named disease, the following remarks apply exclusively to it.

"This affection of the tympanum (simple catarrh), consists in a hyper-secretion by its lining membrane, unduly stimulated to increased action through causes that determine an over-abundant flow of blood to it. Under favourable circumstances this condition ends in resolution, by a return of the hyperæmic tissue to its normal state; but not unfrequently it passes into one in which the morbid processes are in abeyance, and the secretion contained in the tympanum becomes inspissated. More commonly, however, and especially in early life, the morbid processes set up in this cavity become chronic, but still continue active. The secretion increases in quantity, till, exceeding the capacity of the tympanum to contain it, and unable to effect its escape by the Eustachian tube already concentrically closed, it breaks through the membrana tympani, and appears as a flocculent discharge from the external meatus, constituting catarrhal otorrhœa. If at this stage the parts are carefully freed from this secretion, we observe a greater or less loss of structure of the membrana tympani, and the lining membrane of the tympanum highly congested, the colour of it depending upon the degree of the hyperæmia and the duration of the previous stages of the disease; and that it is also hypertrophied and villous. To this condition of the membrane I venture to apply the name polypous hypertrophy, as sufficiently designatory of its appearance. What its microscopic character may be I am at present not prepared to say, for, except in an indirect manner, I have not had an opportunity of ascertaining this. When polypi, however, develop themselves out of this morbid state, and have their attachment to the lining membrane of this cavity, they appear under the microscope to be made up of a proliferation of the loops or papillæ of its vascular layer covered with its own epithelium. The inference, therefore, that in this condition of the lining membrane of the tympanum there is a true hypertrophy of its normal structure seems warranted.

"This condition of the ear, briefly and therefore imperfectly described above, is that in which I have found the local application of alcohol almost specific.

"Those who are familiar with this specialty will not fail to recognize a similarity between the diseases I have described and that in which Professor Schwartze, of Halle, recommends his excellent neutralization treatment (see *Archiv für Ohrenheilkunde*). But while the method devised by the distin-

guished Professor is not inadmissible in recent cases, it is better adapted to those very chronic forms of this disease met with in adult and advanced life. The alcohol, on the other hand, for reasons that need not be entered on, will recommend itself to the practitioner in the treatment of those cases that occur in infancy and childhood."

—

Resection of the Upper Jaw, with Preservation of the Muco-periosteal Covering of the Hard Palate and Incisor Teeth.

In the *Berliner Klinische Wochenschrift* for Nov. 3, 1873, is reported a case in the clinic of Professor Linhart, in which he performed the above operation for the second time. The patient was a married woman, aged thirty-three. She went into a lucifer-match manufactory at the age of twelve, and about a year afterwards she seems to have become affected with match-makers' disease. On admission into the Royal Julius Hospital in May, 1873, her condition was as follows: There was an abscess in the lachrymal sac on the left side; and on examining the mouth, it was found that all the teeth of the upper jaw, with the exception of the two last molars of the left side were loose and nearly falling out. Only the two incisors of the right side and the first of the left side were firm. The teeth of the lower jaw were complete and sound; a tooth had been extracted from the upper jaw some time previously (the carious tooth, which had been the means of the introduction of the disease), and at this spot were two sinuses, which discharged a thin, copious, and very fetid pus. A probe, which could easily be passed, detected dead bone. The gums and mucous membrane of the mouth were pale and inclined to bleed. The disease was diagnosed as phosphorus necrosis of both upper maxillæ. On May 18, Dr. Linhart performed the following operation. Chloroform having been administered, the loose teeth, with the exception of the incisors, and two last molars of the left side, were first removed. An incision was next made from between the eyebrows, perpendicularly downwards over the bridge of the nose, through the middle of the septum, and upper lip. The incision was carried as deep as possible, and the soft parts, with the periosteum of the upper jaw, on each side, were stripped off and reflected as far as the zygoma. Next, an incision was made on the left side with an osteotome, in an oblique direction downwards from the apertura pyriformis, about half an inch below the infra-orbital margin, as far as the second molar tooth. On the right side the disease had spread wider; and, the nasal process being divided, the osteotome was carried close under, and parallel with the infra-orbital margin, as far as the greater wing of the sphenoid. The gum, with the three contained incisors and muco-periosteal covering of the hard palate, was now stripped off and turned down. The detached flap lay on the tongue, and served to conduct the blood out of the mouth and to prevent its going down the larynx. The bones were next separated from their attachments and removed. The muco-periosteal covering of the hard palate was first fastened, and then the cheek-flaps brought together over the bridge of the nose. Following Bardeleben's method, the covering of the hard palate was joined within to the partially detached mucous membrane of the cheek; an armed needle was passed through its free edge, and out through the cheek on each side, and tied over a quilled suture. The external wound was brought together by twisted sutures and hare-lip pins. On the third day all the stitches were taken out, with the exception of those in the palate. The edges of the wound united by first intention, and the pus flowed out between the front opening of the newly formed palate and the upper lip. On the seventh day the sutures in the palate were removed, and it was found that the covering of the hard palate was completely united. It formed a concave bridge, which supported itself.

The three front teeth were not quite firmly set, but could be pressed level. This was effected by placing a piece of cork in the mouth. The gaps soon filled in with granulations, and the muco-periosteal flap and the teeth became rapidly firmer. On her discharge from the hospital on July 12 she could eat and drink, and spoke in a firm voice, scarcely at all nasal.

[The great interest of the foregoing case is the preservation of the teeth; the operation of removal of both bones, either partial or entire, having been frequently performed in cases of phosphorus necrosis.]—*London Med. Record*, Dec. 17, 1873.

—

Section of the Buccal Nerve by the Mouth.

Dr. J. Panas, surgeon of the Lariboisière, has communicated to the Academy of Medicine (Dec. 24, 1873) an account of the section of the buccal nerve from the mouth, with operative rules, which, he says, are not given in books of operative surgery.

Only one procedure has been described thus far, and by this the nerve is sought for by dissection from the skin to the deep surface. It may be described as the proceeding of M. Michel, of Strasbourg, who first in 1856 performed section of the buccal nerve. A description of it is found in the theses of Voisard (Strasbourg, 1864) and in those of Gaux (Strasbourg, 1866) as well as in the work of Letiévant (*Traité des Sections Nerveuses*, 1873). According to M. Panas, Nélaton made the first attempt to divide this nerve from the mouth in 1857, and this procedure was repeated a second time by Nélaton in 1864 (*Bulletin de Thérapeutique*), but of these efforts there remains no trace in rules for the performance of the operation. M. Panas has now drawn up the following description of the operation of intrabuccal section.

First Stage.—The patient being seated facing the light, and having the mouth largely opened and well-lighted by the aid of Luer's gag, applied at the commissure on the side of the operator, the surgeon places the extremity of his left index finger towards the middle of the coronoid border of the jaw. He makes a vertical incision two and a half centimetres long, parallel to his nail, commencing at the middle of the last upper molar, and terminating at the last lower molar. This incision should only divide the mucous membrane.

Second Stage.—The buccinator muscle being thus uncovered, all the fibres seen are divided vertically layer by layer, in such manner as to avoid injuring the buccal nerve immediately subjacent, and the fatty pad of the cheek.

Third Stage.—The nerve is then looked for. It passes transversely from behind forward, following a line drawn from the coronoid border of the jaw and terminating at the commissure of the mouth. A little blunt hook passed into the middle of the incision, made according to the preceding rules, enables the nerve to be found easily, after which it is divided by a pair of blunt scissors curved on the flat. The only vessels of any importance which are necessarily opened, are, the buccal arteriole and venule, satellites of the buccal nerve. Torsion arrests hæmorrhage. The little jet from this artery, and the sensation from pulling on the nerve, easily convince the operator that he has found the nerve; the loss of sensibility following the section confirms the evidence of the completion of the operation. In order to be sure of dividing all the filaments of the buccal nerve, it is well to incise the buccinator to the whole extent of the wound made in the mucous membrane, and, if necessary, even to penetrate the fatty cushion of the cheek. The advantages of this method are: that it is quick and certain; that it produces no cicatrix and avoids deformity; that no risk is incurred of wounding the facial artery or Stenon's duct. M. Panas has performed the operation, with facility and with a result successful for the time at least, on a woman suffering from obstinate neuralgia of twelve years' standing. In all, M. Panas enumerates only seven operations of this sort; two of Michel, one successful; two of Nélaton, one successful; two of Letiévant and Vallette, one successful. The results of the operation then are uncertain, but there is encouragement to employ it in desperate cases.—*London Med. Record*, Feb. 25, 1874.

—

On the Treatment of Sero-sanguineous Cysts of the Neck by Electricity.

Dr. Amussat, Jr. (*La France Médicale*, November, 1873), has described two cases of this kind which he treated by the galvanic cautery, and by

galvano-puncture. Such cysts may become developed in the thyroid body, the lymphatic glands, and the connective tissue of the neck. If not very large, they are simply disfiguring; but, if they grow much, they interfere with deglutition and respiration, compel the patients to carry the head laterally or forward, and generally determine habitual congestion by compressing the vessels of this region. They contain various substances, but mostly simple serum, or serum mixed with blood, or pure blood. One of Amussat's cases was that of a man, aged sixty-nine, who had a tumour on the right side of the neck; it was fluctuating, not tender, had not given rise to discolouration of the skin, and extended from the angle of the lower jaw to the sternum. An exploratory puncture with a trocar brought away a quantity of a chocolate-coloured liquid. The cyst was allowed to fill again, and then the galvanic cautery was used in the following manner. The tumour was punctured above the internal extremity of the collar-bone with a long explorative trocar, which was directed obliquely upwards and backwards, so that the point came out behind the angle of the lower jaw; the stilet was then taken out, and a platinum wire substituted for it, the extremities of which projected beyond its entrance and exit for about ten centimetres each way. The end of the canula of the trocar was then brought back into the interior of the cyst, and the contents were evacuated, after which it was withdrawn. The two ends of the wire were then seized with clamps connected with a galvanic cautery battery; the wire was rendered red hot, and the interior of the cyst cauterized, care being taken to bend the wire laterally so as to act upon different portions of the internal wall of the sac. Poultices were then used, and there was neither local nor general reaction. About a month afterwards (!) the platinum wire was withdrawn, and the opening sores dressed with a cerate and cotton-wool. Five months afterwards these small sores had completely healed, and the patient was well. He was seen again six months later, when the only indications left on the tumour were two small cicatrices at the points of entrance and exit of the wire.

The second case was that of a lady, aged twenty-four, who had on the left side of the neck a tumour of the size of a nut, just above the carotid artery. Iodine had been used externally without success. Amussat introduced two fine steel needles connected with the poles of a small Bunsen's battery, and allowed the current to pass through it for five minutes. A somewhat larger battery was then used, and altogether forty-five applications were made, which were followed by external use of the tincture of iodine, and the tumour ultimately disappeared. Amussat does not think that the tincture of iodine had much to do with the cure, as it had already been used before without result, and the tumour was considerably diminished by the galvano-puncture alone before the iodine was again resorted to. He also says that, if he were again called upon to use the galvanic cautery in cases like the one just mentioned, he would take the platinum wire out immediately after the operation, and thereby shorten the duration of the treatment.—*London Med. Record*, January 28, 1874.

—

On a Rare Form of Scirrhus of the Male Breast.

Prof. Doutrelepont (*Berliner Medicinische Wochenschrift*, March 14) relates a case of a rare form of scirrhus of the male breast (squirrhe pustuleux ou disséminé of Velpeau). Carcinoma of the male breast is very uncommon, and this particular form still more so. The patient was fifty years old, weak and sickly looking. In 1870 he first noticed a hard swelling in his left nipple, which, however, did not cause much pain. It was treated with iodine ointment. In 1872 he first felt pain from the pressure of his braces, and from that time there was a general enlargement of the swelling. In February, 1873, it ulcerated and spread. This was treated with nitrate of silver. In May, when he first came under observation, the mass had become attached to the ribs. The ulcerated surface was somewhat circular, and had a diameter of about $2\frac{3}{4}$ inches. The base was very much excavated, cicatrized at one little spot, and very hard. There were several hard knots in the skin, and at the edge of the

axilla was a movable mass, as large as a pigeon's egg. At the edge of the sternum and close to the xiphoid process, there were two knots attached to the cartilages, and a good many of the axillary glands were enlarged and hard; between this time and July a dozen new tumours had appeared. The ulcer was treated, after Burow's method, with powdered chlorate of potash.

Two contiguous tumours were removed, and a microscopical examination showed scirrhus. In the proximity of these tumours there was a cell-infiltration through the entire skin in the form of canals, which ran obliquely to the surface, in different places irregularly dilated, ramifying, and, on close examination, leaving no doubt that they were in connection with the lymphatics of the skin. Where this cell-infiltration involved the epithelium of the glands of the skin or of the epidermis, great proliferation was manifested. It is probable that the scirrhus in this case spread through the lymphatics of the skin.—*London Med. Record*, April 22, 1874.

—

On Amputation of the Penis at the Pubes.

Mr. Henry J. Tyrrell, Surgeon to the Mater Misericordiæ Hospital, states (*Dublin Journal of Med. Sciences*, March, 1874) that in amputation of the penis, when, from the extent of the disease, it becomes necessary to remove the organ from the pubes, the crura are liable to retract beneath the pubic arch, and consequently much difficulty is often experienced in arresting the hemorrhage from the stump.

An old man, aged seventy, with very extensive epithelioma of the penis, of four years' growth, was admitted into the Mater Misericordiæ Hospital, under my care, last November. The disease engaged so much of the organ that I was obliged to remove it as far back as the pubes, and I adopted the following simple method of preventing the contraction of the corpora cavernosa.

Having with my left hand drawn the penis well forward, I transfixed, with a strong acupressure pin, the crura immediately in front of the pubes, and tied a thin tape tightly round the penis behind the pin. I then, with one stroke of a small amputating-knife, cut through all the organ in front of the pin. The tape being gradually loosened, all the arteries requiring notice were twisted; the urethra was next slit for half an inch, and I united the mucous membrane of the urethra to the skin by three sutures of carbolized gut; a piece of cork was stuck on the sharp end of the acupressure pin, *which was not removed*. No dressing was applied; and the patient was directed, when he desired to pass water, to press the bell-end of a vaginal glass speculum against the pubes, and to micturate through it. I also desired my dresser, Mr. Dempsey, if any hemorrhage came on during the day, to apply a figure-of-8 suture round the pin and over the stump sufficiently tight to control it.

Everything went on well; no pain was caused by the pin. I did not remove it for three days. No further details are necessary.

It is quite evident that by the use of the pin in the manner described, *all danger of hemorrhage is avoided;* and also, by leaving it in for a few days, rest to the stump is secured, and *time is given for the speedy union of the mucous membrane and integument.*

As far as I know, this mode of treatment has not been before described.

—

A Novel Method of reducing Paraphimosis.

M. Bardinet, of Limoges (*L'Union Médicale*), describes the case of a young man who converted the congenital phimosis, of which he was the subject, into a paraphimosis. This was followed by swelling and pain. At the expiration of twenty-four hours, M. Bardinet was consulted, after one of his *confrères* had failed in an attempt at reduction. This surgeon found the preputial ring tightly constricting the corpora cavernosa, and the glans penis very swollen and of a deep red colour. He tried the ordinary methods of reduction for some time, but failed. Then the idea struck him of acting on the preputial ring by its deep aspect as well as by its external surface. It occurred to him that if he

could introduce a lever between the tight ring and the corona glandis, he might raise the ring and depress the corona, the prominence of which formed the obstacle to be surmounted. In the absence of any surgical instrument, he made use of two hair-pins. These presented two levers, which were at the same time blunt, light, but sufficiently strong, and of a size in proportion to the separation of their branches. By bending down the glans and drawing the preputial ring towards the pubes, he found that he could easily glide the blunt rounded end of one of the hair-pins between the preputial ring and the body of the penis. It not only entered without trouble, but could be pushed on to a sufficient depth. Encouraged by this, he inserted, as soon as possible, the second pin in the same manner. The two pins being well fixed, he began a see-saw movement, with the threefold advantage of lowering the prominence formed by the corona, of raising the preputial ring, and of establishing before it an inclined plane, on which it might smoothly slide. He next practised the ordinary method of reduction, and, after a few efforts, succeeded completely.

He thinks that in the majority of cases it would be as easy to insert the lever as it was in his case. He believes that adhesions which might oppose the use of the lever are less frequent than they are represented to be. He draws attention to the fact that the whole prepuce does not become the cause of the strangulation, but the constriction is by the preputial ring, which corresponds to the union between the mucous membrane and the skin. That ring, very strong and resisting, in some cases acts like a cord. Behind the ring, the prepuce is supple. The author suggests several other things which might be employed instead of the hair-pins, viz., a spatula, the handle of a small spoon, or any blade with blunt edges. One need not limit one's self to the lever action only; a dressing forceps (*pince à anneaux*) combines a dilating power with the lever; the forceps with three branches, made for dilating the wound in tracheotomy, might be still better. Blunt round flat hooks, elevators of the eyelids, might be employed. In introducing blunt hooks, they should be applied on the back of the penis; the beak should be slid under the constricting ring from before backwards; they should then be made to describe a half circle forwards, and by that movement the preputial ring would be firmly caught. With two hooks a triple result might be accomplished; dilatation of the ring, traction from behind forwards, and depression of the corona, over which the prepuce is to be brought.

Mr. John Croft states that this simple plan resorted to by M. Bardinet seems admirably adapted to the nature of the case, and is a valuable addition to the old plan of reduction. However, it is obvious that it can only be applied in a limited number of cases, viz., those which are seen by the surgeon within the first two or three days after the accident.—*London Medical Record*, Feb. 11, 1874.

—

Extirpation of the Lower End of the Rectum.

These cases are sufficiently rare to deserve notice, especially as the method is somewhat new. A female, æt. 47, had suffered from cancer for two and a half years. The sphincter had lost its power, the patient was losing blood, gradually became feeble and thin, and unable for her usual employment. Patient being put under chloroform, M. Verneuil (1) traced on the skin, by the galvanic cautery, a horse-shoe-shaped incision, the convexity of which passed between the anus and commissure of the vulva, the two ends of which terminated at a line opposite the tip of the coccyx. (2) He united these two ends by an incision which passed a line or two behind the anus, and thus raised what may be called a coccygeal flap, and thus detached it from the deeper parts. (3) He, with his index finger in the bowel and the thumb behind it, dissected, by gradual strokes of a galvano-caustic knife, the parts behind, in front, and at both sides of the bowel, an assistant always pulling the part to a side when the knife was applied. In this dissection the middle hemorrhoidal artery bled a little and required ligature, but the dissection was done as easily as with a bistoury. (4) The upper limits of the tumour being felt, the rectum was then opened to that extent in a longitudinal direction by the écraseur. It was then

easy to open out the bowel, and have under the eye the upper limits of the disease. (5) In four applications of the chain, M. Verneuil then divided the upper attachments of the disease, which thus was completely detached to the extent of nearly four inches. The wound was then dressed simply with charpie, muslin, and a little carbolic acid.—*Edin. Med. and Surg. Journal*, March, 1874, from *Gaz. Médicale de Paris*, No. 1, 1874.

—

Aneurism of the Radial Artery.

Mr. Richard Quain, Surgeon Extraordinary to Her Majesty the Queen, reports (*Med. Times and Gazette*, Jan. 29, 1874) the following:—

A case which I lately saw has brought to my remembrance one that had been under my care many years ago. As this is the only example of the same disease that has come under my continued observation, and as, moreover, I am not acquainted with the record of any similar case, I send for publication a statement of the facts taken from my note-book.

Mr. R., aged 67 years, a tradesman in respectable position, applied to me in October, 1848, in consequence of a small pulsating tumour on the wrist of the right hand. It had existed for a month, and had steadily increased in size. Mr. R. being a slender person, of very spare habit, the examination of the parts was the more easily and completely made. The swelling was about the size of the ungual joint of one of the smaller fingers. It lay on the outer and back part of the carpus, behind the first metacarpal interspace, in the hollow formed by the tendons of the extensor muscles of the thumb, which is made evident when those muscles are thrown into action. It was therefore in the position the radial artery usually occupies after it has turned backwards from the front of the forearm to penetrate from behind between the first two metacarpal bones to become the deep palmar artery.

In assigning, as is virtually done here, a metacarpal bone to the thumb, that which seems to be the common though not strictly accurate custom of modern anatomists is followed.

To the touch the tumour was smooth, and equally so over the whole surface. It was very elastic, as it might be if formed of fluid within a thin covering. It was not lessened in size by pressure. Pulsation was felt equally on every part of the little swelling. It was diminished by compression of the radial artery in the forearm, and ceased when the ulnar artery was compressed at the same time. Then what was the nature of the tumour? Was it a bursa over the artery, or a protrusion of a carpal synovial membrane, or was it a dilatation —aneurism—of the radial artery? In order to aid the facts already stated, and to determine the diagnosis as far as might be done, I passed a small needle into the tumour at different points—at the middle, and at the circumference—and only unmixed arterial blood followed. I concluded that the disease was an aneurism of the radial artery.

The treatment was twofold: first, pressure was made directly on the tumour by means of a compress fixed with adhesive plaster and bound on with a narrow roller around the hand and wrist; secondly, to that was added compression of the arteries on the forearm, with a view to diminish the force of the impulse of blood. The latter object was attained by means of a compressor for both the vessels made to suit the case. The cure was soon effected; and then neither swelling nor pulsation existed. The artery at the seat of the disease was obliterated. During the treatment, the skin, it may be mentioned, was not damaged.

The compressor with which the radial and the ulnar arteries were acted on was constructed for me by Mr. Coxeter, and consists of two parts, intended to be placed, one in front, the other behind the forearm. The pieces are connected at one side with a hinge, and, when applied, they are bolted together at the opposite side with a screw. The part behind the limb is covered with a cushion, while in front two screws bearing small oval pads project. These are movable laterally, to admit of accurate adjustment to the vessels. The screws of the bolt and of the artery-pads are worked with the same key.

Midwifery and Gynæcology.

Thermometry of the Uterus and its Diagnostic Significancy.

At a meeting of the Vienna Medical Society Dr. Schlesinger delivered an address on this subject. The question he wished to treat was, whether, by aid of the thermometer, we are enabled to diagnosticate those difficult cases wherein all other means fail us—viz., the early months of pregnancy. In favour of the possibility of doing so is the admission that the temperature of the fœtus in utero is higher than that of the mother, and that the greater warmth of the uterus than that of the vagina in pregnancy is derived from the contact of the fœtus. In illustration of this point he referred to the experiments of Bärensprung upon fowl's eggs, rabbits, dogs, and the human subject. He found that the development of the chick was accompanied by an increase of temperature of 0.3° C.; and that when the thermometer was in rabbits and dogs placed within the uterus, within the cavity of the pelvis, and within the cavity of the abdomen, the temperature in the pregnant animal attained its maximum within the cavity of the uterus. In six cases he found that the temperature of the human fœtus was higher than that of the mother, and communicated heat to the uterus. Schroeder found also, on introducing the thermometer into the uterus three or four days prior to parturition, that the temperature was higher there than in the vagina and axilla, and he agreed with Bärensprung that this higher temperature was derived from the fœtus—a view which was confirmed on finding that the temperature of the newborn infant was higher than that of the mother both during and after delivery. This conclusion was remarkably confirmed in a case in which the child died seventeen hours before birth, and there was only a difference of 0.02° C. between the temperatures of the uterine cavity and the axilla, whereas this had amounted during pregnancy to 0.9° C. In a protracted breech-presentation the first measurement furnished a temperature of 38.9° in the vagina, that of the fœtus being 39.4°; and two measurements towards the end of the labour gave 39.1° in the vagina and 39.65° for the child, and 38.8° in the vagina and 39.55° for the child. From these and other observations Schroeder deduced the following rule: If the temperature of the pregnant uterus is higher than that of the vagina, and if such excess is derived from the warmth produced by the fœtus; and if with the death of the fœtus this source of caloric is dried up, and the uterus must impart it to the dead mass, we may infer that the death of the fœtus has taken place when the difference between the temperatures of the uterus and vagina entirely ceases, or exists only to a very slight extent.

More lately this proposition has been expanded by employing the thermometer as a means of diagnosing pregnancy during the early months when aid is so much required. Before any positive conclusion could be drawn, it became necessary, however, to ascertain whether there is any difference between the temperature of the uterus and the vagina in the non-pregnant condition. Dr. Schlesinger has made several investigations by means of a new thermometer which he has contrived, and has found a difference between the temperatures of the axilla and vagina of 0.21° C., and between those of the vagina and uterus of 0.16° C., so that there is a higher temperature of the uterus in non-pregnant as well as in pregnant women. In a comparison of the temperatures of the rectum, vagina, and uterus, the two latter exhibited a slightly higher temperature, that of the cavity of the uterus being also higher than that of the cervix. The general result of the investigation is that the uterine cavity, both in the pregnant and the non-pregnant conditions, possesses a higher temperature than the vagina, but the gravid uterus is of a higher temperature than the non-gravid, and the parturient uterus is of a higher temperature than the non-parturient.—*Med. Times and Gazette*, April 11, from *Allegem. Zeitung*, March 10, 1874.

Extra-Uterine Pregnancy.

Dr. J. H. Cathcart presented to the Pathological Society of Philadelphia (*Phila. Med. Times*, Dec. 27, 1873) a specimen of Fallopian pregnancy, with rupture of the cyst in the third week. In the discussion which followed the presentation of this specimen Dr. Parry said that physicians have for a long time been unable to diagnosticate with certainty the existence of extra-uterine pregnancies. He thought, however, that there was a series of symptoms which would enable one in the main to predict such a condition. For the space of six or eight weeks after conception there are noted the usual signs of pregnancy, and there are no symptoms of the anomalous condition. After this period, however, the patient will complain of exceedingly severe attacks of pain in the pelvic region, radiating sometimes over the whole abdominal cavity. This is often mistaken for the pain of an uncomplicated cellulitis or pelvic peritonitis, and in a recent case which had come under his observation several physicians of experience had diagnosticated these conditions. This pain is periodical in its occurrence—every two or four weeks. It is exceedingly severe, and often produces profound collapse, the patient becoming pulseless, pale, and cold. It is often preceded or accompanied by vaginal hemorrhage in greater or less quantity. The occurrence of these three—1, the usual signs of pregnancy for six or eight weeks; 2, the periodical pain; and 3, the vaginal hemorrhage—ought always to lead the physician to suspect extra-uterine pregnancy. If a deciduous membrane is discharged from the uterus, the diagnosis is certain.

After examining the histories of some two hundred and eighteen cases, he had found the condition was often associated with pelvic peritonitis and malformations about the uterus. In the course of this study he had been surprised to find a large number of cases in which the Fallopian tube entered the cavity of the uterus at some abnormal point, frequently near the cervix instead of the fundus.

In this case the ovum was lodged in the left Fallopian tube, which Dr. P. said was not the most common seat of a tubal pregnancy, it being much more frequent on the right side. The rupture had occurred here much earlier than it usually does, taking place in the majority of cases at the end of the second month. It not unfrequently happens that if it goes beyond this time it reaches nine months, and cases are recorded which have gone beyond full term, the autopsy revealing the fœtus in the Fallopian tube. An undoubted decidua lines the uterus in this case, and this is always the case, though this fact is denied by Robert Lee. The decidua is formed and often thrown off, being mistaken for an abortion. Nor is it always thrown off in mass, but often in pieces so small that it can only be detected by careful microscopical examination of the vaginal discharges.

Dr. Parry also said that twin extra-uterine pregnancies were rare, there being but one on record in this country, in the *New York Medical Repository*, in 1810, and possibly one in France.

On the other hand, combined intra and extra-uterine pregnancies are not so rare.

Dr. H. Lenox Hodge said there had fallen under his notice but one case of extra-uterine pregnancy. It was of the kind called interstitial. The patient was brought to him from the country. The possibility of a tumour being present had been raised on account of the peculiar shape of the body. He decided that it was a case of extra-uterine pregnancy advanced to seven or eight months. In consultation with his father it was determined to bring on labour, and endeavour to save both mother and child. This was done by dilating the os uteri with Barnes's dilators. After the dilatation was accomplished, the tissues of the uterus on the side of the tumour were scratched with a blunt-pointed instrument, and finally gave way, and the membranes ruptured. A child was extracted, which lived about three hours, and the mother completely recovered. The seat of the tumour in that instance was on the right side, at the entrance of the Fallopian tube, but the whole uterine cavity was encroached upon by the presence of the child.

Dr. Parry said that he had met with the record of a case similar to that reported by Dr. Hodge. The patient was delivered by passing the hand into the cavity of the uterus and rupturing the cyst. Dr. Parry was not certain whether it was tubal or interstitial, and said that he had met with the record of but eleven cases of interstitial pregnancy out of two hundred and eighteen cases above mentioned. Interstitial pregnancy is also more common on the left side than on the right side. In a case reported by Braxton Hicks (*Trans. Obstet. Soc. Lond.*, 1868, p. 57), he said the cyst ruptured spontaneously into the cavity of the uterus during the sixth month. The placenta was not delivered, and the woman perished.

—

On Certain Improvements in the Construction and Use of the Long and Short Midwifery Forceps.

Dr. Thomas More Madden (*British Med. Journ.*, June 27, 1874) gives the following description of his short and long forceps, which present modifications which he thinks, trivial as they may perhaps appear, will be found to facilitate their application and to increase their utility.

The short straight forceps possesses considerable power as a tractor. Its weight is but eight ounces. The length is ten inches, of which six inches are taken by the blades and four inches by the lock and handles; the latter are checker worked. The greatest space between the blades when locked is two inches and seven-eighths, and between the points one inch and a quarter. Great attention has been paid by the maker, Mr. White, of Sackville Street, Dublin, to the avoidance of any sharp edges or points. The curve of the blades is by no means as acute as it is in the ordinary forceps, and commences half an inch above the lock, the interfering shank being bevelled internally and bent outwards, so as to form a space for the finger of the operator. The fenestra extending throughout the blades, and being as wide as is consistent with strength, the scalp protrudes through these openings, so as to cover the rims, and thus, to a great extent, protects the maternal passages from any contact with the instrument during the extraction. The shortness of the handle limits its compressing power, and facilitates its application in any position in which the patient may be. This instrument, which may be regarded as a simple tractor, is intended for cases of delay in the second stage of labour; and, having now used it during the last few years with perfect ease and success in upwards of a hundred cases myself, and also had favourable accounts of the experience of many gentlemen, formerly pupils of the hospital, who are now using the forceps in different parts of the world, I venture to recommend it as being easier of application and as effectual in ordinary cases of delay in the second stage of labour as any of the longer or double-curved instruments in general use.

The long forceps is a double curved instrument, weighing about twenty-six ounces. Its total length is 18 inches, of which 10 inches are occupied by the blades, which when closed, approximate to $2\frac{3}{4}$ inches at the widest point, and $\frac{1}{4}$ inch at the extremity, 3 inches by the lock, and nearly 5 inches, by the handles which are movable. By the latter arrangement the instrument, besides being more portable, may be applied as a short as well as a long forceps in the ordinary obstetric position. When a greater power is required, the handles are adjusted, and then the instrument must be used in the supine instead of in the ordinary left lateral position. At the extremity of the handles is affixed a screw somewhat like that of the cephalotribe, by means of which the amount of compression exercised on the child's head may be exactly regulated. Strong shoulders are placed beyond the lock to increase the traction-force of the instrument. The shank between the blades and lock is so long that when applied to the head, however long it may be, there is no danger of the soft parts being nipped by the locking. The curves of the blades are by no means as acute as in the ordinary forceps, in some of which their curvature is that of a section of a circle so much larger than that of the average fœtal head that the instrument is in contact with it at only two points, on which excessive and injurious pressure must, therefore, be made, and from which the instrument is very liable to slip; whereas in my forceps the blades were carefully moulded on a number

of average sized fœtal heads, until a curve was obtained which would allow the most complete apposition between the blades and the child's head to which they were applied, and thus the injurious effects of the compressive power of the instrument, as well as the danger of its slipping, are both reduced to the minimum.

With regard to the application of my long forceps, I have only to say that it is most easily accomplished when the patient is placed on her back and drawn down to the foot of the bed; but, when she objects to this, it may be readily accomplished by drawing her hips well over the edge of the bed, and following the same course as that directed for the application of the short forceps, with the exception that it is not so essential to be particular about the position of the child's head, as the instrument must be applied in the largest or transverse diameter of the pelvis, one blade being in each ilium; and hence, as I pointed out in a work to which I have before referred, it is a matter of comparatively little importance whether they are applied antero-posteriorly or transversely over the child's head.

The short forceps now exhibited is, I believe, about the safest instrument of the kind that can be employed, and the long double curved one I hold in my hand is, perhaps, the most powerful. But I must add that an instrument so powerful for evil as well as good, as any long double curved forceps must be, is not to be rashly resorted to. And when we remember that Smellie, who first introduced the long forceps into this country, was so fearful of the possible abuse of its powers as to abstain from recommending its use, or even from exhibiting it to his class, we should at least exercise no ordinary discretion in our freer use of what an old writer terms "this noble instrument."

—

Imperfectly healed Cœsarean Section a Cause of Death in Subsequent Labour.

A. Willigk describes in the *Prager Vierteljahrschrift* for 1873 the case of a woman on whom Cæsarean section was performed in 1870, on account of narrow pelvis, and who died of general peritonitis after a subsequent labour. On *post-mortem* examination the cicatrix in the abdominal wall was found to be as large as the palm of a hand, and like the cicatrix of a burn; the fundus uteri was firmly adherent to the cicatrix. From the point of attachment a gaping wound, more than two and a half inches long, extended into the uterus. The edges of the laceration were covered with red granulation-tissue; and this led Willigk to suppose that it was the result of the Cæsarean section, and had lasted throughout pregnancy. It must be assumed that during pregnancy an abscess was formed in the uterine cicatrix, which, closed at first by the surrounding tissues, was torn open during labour; and that effusion of ichorous matter into the peritoneum took place and produced peritonitis.—*Brit. Med. Journ.*, April 25, 1874, from *Centralblatt für die Med. Wiss.*, April 4.

—

Subcutaneous Injections of Ergotine for the Varicose Veins of Pregnant Women.

At a meeting of the Obstetrical Society of Berlin, in April, 1873, Dr. Rugge related a case where he had obtained marked results from the use of ergotin. A woman, 36 years of age, who had suffered exceedingly, during a previous pregnancy, from varices, came under his care in the eighth month of pregnancy, suffering from her previous trouble. The veins of the left leg and thigh were enlarged, dilated, and tortuous.

Injections were made subcutaneously with from one to two grains of ergotin, and repeated every few days. The action was very apparent after the first injections, and after the seventh the varices had almost disappeared. The right extremity was not affected.

There was some pain and infiltration following each insertion of the instrument, but no abscess occurred. The ergotin had no influence in provoking labour-pains.—*Med. Record*, April 1, 1874, from *Berlin Klin. Woch.*, 44, 1873.

The Influence of Inhalation of Chloroform on the Fœtus during Delivery.

Dr. Zweifel (*Berliner Klinische Wochenschrift*, May 25, 1874), observing that children born when chloroform had been administered to the mother were frequently jaundiced, was induced to make some investigations to see whether the anæsthetic could be traced to the child, which might explain the excess of jaundiced children when the mothers were chloroformed.

He first searched for chloroform in the placenta. This was carefully washed and then cut up into small pieces and placed into a retort, and distilled by means of the sand-bath. There was a perceptible odour of the vapour; but to be more sure he tested for it, and in every case a trace was found. He then proceeded to examine the urine of children whose mothers had been anæsthetized, and without exception found chloroform.

In one case, whilst the anæsthetic was being given to the mother, the fœtal pulse suddenly became less frequent and the sounds scarcely audible. Delivery had to be hastened to rescue the child.

From the experiments made he came to the conclusion that chloroform inhaled by the mother passes to the child, and it is anæsthetized with the mother. As narcotism is contraindicated in children, Dr. Zweifel intends prosecuting his investigations to see to what extent it can be given without injury to the child.—*London Med. Record*, June 24, 1874.

—

On the Treatment of Vascular Growths of the Urethra without Operation.

Dr. Arthur W. Edis read an interesting paper on this subject before the Obstetrical Society of London (*Brit. Med. Journ.*, April 4, 1874). Considering the frequency and amount of suffering and inconvenience caused by vascular growths of the urethra, it seems strange that so little attention has been given to the subject in many of the recent works on diseases of women. One of our best treatises does not even mention them; another, although it recognizes them as an "exceedingly important affection," dismisses them with a single page. Scanzoni accords them but little more. Dr. Barnes enters fully into their consideration; but, as far as I have been able to ascertain, nearly all authors are agreed in stating that their removal by operation, if not the only thing to be resorted to, is at least the only thing that can be relied upon for effecting a cure.

Now, it is familiar to all who study gynæcology how much patients dread anything of the nature of an operation; and, even when it is resolved upon, it necessitates the administration of chloroform and other preliminary arrangements; and when, as frequently happens, patients present themselves in the consulting-room who come up from a distance, the mere fact of announcing the necessity of an operation is equivalent to frightening them into "rather bearing the ills they have" than submitting to operative interference.

The application of the pernitrate of mercury is attended by much pain and inconvenience, and cannot always be resorted to. Nitrate of silver, in my experience, is not sufficiently potent; it produces too much irritation, and does not sufficiently destroy the vascular growth—in many cases seeming to increase rather than diminish it. The actual cautery cannot well be applied unless the patient be at home; and the various other agents, such as potassa fusa, nitric acid, etc., are too painful to be of general application.

To obviate this difficulty, I was induced to try the effects of *chromic acid*, and was surprised to find how little inconvenience it occasioned, and at the same time how efficacious it was in destroying the growth. I have in numerous instances applied a saturated solution, and with the most marked benefit. My usual plan is to roll a little cotton-wool round the end of a small piece of wood (an ordinary match will do); to soak it for a quarter of an inch in the acid solution; and then to carefully yet firmly press it upon the vascular growth until the surface becomes distinctly shrivelled; the surrounding parts being guarded by cotton-wool soaked in solution of carbonate of soda, which is also applied to the growth subsequently, to neutralize any excess of the acid. Slight burning pain is produced, but seldom sufficient to need any employment of morphia, either hypodermically or as a local application.

The sensitiveness of the tumour is almost completely destroyed, some soreness being all that is complained of. In about a week's time, a second application should be made; and, depending upon the size of the growth, two or more subsequent applications, at a week's interval, will generally be sufficient to complete the cure, which, as far as I have been able to observe hitherto, is permanent. *Carbolic acid* in the solid form, or as a saturated solution, also serves to mummify these growths, and causes far less inconvenience than many of the numerous agents recommended. My experience with this is not yet sufficiently great to enable me to speak more positively, but I believe it will be found to be a very useful addition to our list of remedies in these cases.

We append one of a few cases reported where the chromic acid had been employed.

J. C., aged 37, married sixteen years, without children, was first seen on October 16th, 1873. She complained of smarting pain on micturition, was obliged to get up several times in the night to pass urine, experienced much pain on walking or exertion, had a slight discharge, occasionally tinged with blood, and suffered much inconvenience *in coitu*. On examination, a vascular growth was discovered bulging from the urethra; it was sessile, being attached to about two-thirds of the circumference of the passage; it was exquisitely sensitive, and bled readily when touched. A saturated solution of chromic acid was carefully, but thoroughly, applied, the pencil being pressed firmly on the surface. Some slight inconvenience was caused at the time, but this passed off after a few hours. A mixture of bicarbonate of potash and tincture of belladonna was prescribed, together with a soothing lotion.

On October 23d, she reported that the pain on micturition was less; the urethra being still vascular, the chromic acid was reapplied. Bromide of potassium was given in place of the other mixture.

On November 6th, the chromic acid was again resorted to, and caused little or no inconvenience.

On November 20th, the urethra being still somewhat vascular, a strong solution of carbolic acid was applied, after which no further local means were resorted to.

—

On Pruritus Urethræ and Pruritus Vaginæ.

H. Clements (*Praktische Heilkunde*, vol. i. 1874) treats this obstinate affection by means of grooved metal bougies smeared with an ointment containing borax and lard in the proportions of 1 to 3. Should he not succeed by this means, he used the induced current of electricity by passing a leaden bougie, smeared with the above preparation, into the bladder, to which he attaches one pole, while the other pole is applied to the nape of the neck; a gentle current of inducted electricity is transmitted for about ten minutes at a time. In pruritus vaginæ he passes one pole, with a sponge at the end, up the vagina, smeared with borax. He states that by this means he has cured the most inveterate cases in old women, and has also cured cases of chorea magna, where it was dependent upon hyperæsthesia of the urethral mucous membrane. —*London Med. Record*, April 1, 1874.

—

On Exudation in the Neighbourhood of the Female Genital Tract.

Professor Spiegelberg states (*Sammlung Klinischer Vertrage*, No. 71, 1874) that further experience has justified his former assertion that these exudations are the most important affections with which one has to deal in diseases of women. A knowledge of this complaint is entirely of modern date, and, thanks to French authors, we are now in a position to take a fair survey of it. Already there exist two opposing doctrines. One, maintained especially by Bernutz and Goupil, is that the peritoneum covering the female pelvic viscera and the neighbouring pouches and folds is the more dominant factor, and that the disease is a pelvi-peritonitis; the other is, that the disease has its origin in the cellular tissue in which the genital tract is situated, and which forms the

parenchyma of the broad ligament; and that a phlegmon of the pelvic cavity is the chief cause of these exudative swellings and nodules. Authors are not yet unanimous whether perimetritis or parametritis is the more frequent, and in some cases the distinction is exceedingly difficult. It is a wide field of contention amongst writers, and this arising principally from want of clearness in the anatomical representations, and from imperfect knowledge of the relations of the serous membrane to the genital organs and to the pelvic fascia, and of the latter to the uterus and vagina. Dr. Spiegelberg relates much that is already well known, for the purpose of making a few remarks on their connections, etc., which, he considers, will have some influence on the etiology of this disease.

There are two plates: one a modified copy of Kohlrausch's vertical section of the pelvis and its organs; the other a transverse section, showing the vessels on the posterior surface of the uterus and cervix with the rectum and half of the peritoneum removed. He gives a brief anatomical sketch, and by aid of these plates attracts particular attention to the great amount of loose areolar tissue beneath the peritoneum at the point of its reflection from the anterior surface of the uterus (opposite the internal os), and where it covers the bladder. Between the bladder and cervix and upper portion of the vagina, it diminishes considerably. This tissue is exceedingly vascular, and rich in lymphatics. On the posterior surface of the uterus, the serous membrane, instead of descending in a direct line, opposite the middle of the neck, is separated from it by a bulging mass of cellular tissue; thence it is reflected along the hinder part of the vagina, and up the anterior surface of the rectum, being, for a space of one or two centimetres below this mass, in very close contact with the vagina. By this arrangement, a retro-uterine as well as a retro-cervical phlegmon becomes possible.

Laterally, the peritoneum, about the middle of the uterus, suddenly quits it, being reflected over the broad ligaments, whose roof it forms, leaving free a triangular space with its apex pointing upwards, full of loose areolar tissue. Thence the serous membrane spreads upwards over the sides of the pelvis, and over the iliac fossa. Between the peritoneum and the recto-vesical fascia there is a large quantity of cellular tissue and vessels. Beneath the recto-vesical fascia is the ischio-rectal fossa, containing vessels, a large amount of fat, and areolar tissue.

Luschka, from their relations, has named these three cavities, from above downwards, the cavum pelvis peritoneale, the cavum pelvis subperitoneale, and the cavum pelvis subcutaneum (ischio-rectal fossa). Of these cavities, the subperitoneal is the most important, as it contains not only the trunks of vessels, but also venous plexuses, besides abundance of veins and lymphatics, whose roots are embedded in the uterus. It is here that the ante- and retro-cervical subperitoneal tissues become united. The cervix is enveloped in cellular tissue, gradually diminishing in quantity from above downwards. This is particularly important: 1. Because this tissue is intimately connected with the parenchyma of the neck, and in a measure forms its capsule; 2. Because it not only conducts bloodvessels and lymphatics to and from the tissue of the cervix, but of itself represents a cavernous structure (Rouget); 3. Because it takes part in all irritations and tumefactions of the cervix. In lesions of the cervix, on account of the thinness of the cervical walls, the cellular tissue easily becomes affected. The slightest lesion may set up inflammatory swellings; and, from its very construction, the tissue is an extremely favourable place for the reception and spread of septic matter by the bloodvessels and lymphatics.

Virchow (*Archiv*, No. xxiii.) introduced the name of parametritis to denote inflammation of the cellular tissue surrounding the lower portion of the uterus and the vaginal substructure. This word has later come to mean inflammation, not only of the parenchyma of the broad ligaments, but also of the entire pelvic fascia (Matthews Duncan), and hence has arisen some confusion.

The pathological importance of the pelvic fascia in the different situations, is very various. Dr. Spiegelberg proposes to give the name "parametranal" to that layer, copiously supplied with bloodvessels and lymphatics, which surrounds the lower segment of the uterus and the base of the vagina for about

two centimetres in width. Its inflammatory infiltration and subsequent induration would be parametritis; but, in order to prevent mistakes, it would be better called "parametranal inflammation"—preserving the French nomenclature for inflammation of the parenchyma of the broad ligament and the pelvic fascia, viz., "phlegmon of the broad ligament," and "phlegmon of the pelvic fascia."

From this brief sketch, it is easily seen that intra-peritoneal exudation must very rarely occur in front, hardly ever laterally, but invariably behind in Douglas's pouch, consequently retro-uterine as well as retro-vaginal. As in the commencement all peritoneal exudations are fluid, they flow as a matter of course downwards, collecting at the bottom of Douglas's pouch, which is the most dependent portion of the abdominal serous membrane. They only appear as tumours, when encysted through gluing together of the intestine and pelvic viscera with the parietes by lymph. The process is generally gradual, but in some instances very rapid. Not a few of these cases are diagnosed as retro-uterine hæmatoceles. The contour of the swellings is always smooth and uniformly arched. The tumour is lowest at its centre, sometimes reaching down as far as the external os, especially in women who have borne children, in whom Douglas's pouch extends lower down. Laterally, it never touches the sides of the pelvis, but approaches nearer to them from below upwards. Its border is ovoid. The uterus is pushed forwards and upwards to an extent depending on the size of Douglas's pouch and the amount of fluid effused.

An intra-peritoneal exudation has not a retro-uterine position except when it collects in occasional hollows, previously formed by false membranes and adhesions, either between the bladder and uterus, or laterally between it, the Fallopian tubes, and ovaries. Adherent loops of intestines may simulate tumours. The high situation of these tumours, and their being placed permanently laterally and in the posterior part of the cavum peritoneale, secures their correct diagnosis; still there are cases in which it is exceedingly difficult to distinguish them from phlegmonous nodules.

Professor Spiegelberg lays great stress on the fact that "parametranal phlegmon forms a tumour from its very first commencement," from being surrounded by a layer of cellular tissue. Its consistency varies; at first it is boggy, then fluctuating; later on, fixed, hard, knotty, and cord-like. The swelling may be on any side of the cervix; it is rarely large in front, from the small amount of areolar tissue between the bladder and neck, but may extend upwards along the abdominal walls for some distance, presenting a board-like structure, with a sharp well-defined border closely attached to the abdominal integuments, reaching to various heights in the inguinal region, and losing itself in the iliac fossa. It may be situated posteriorly, forming a retro-cervical parametritis, and is frequently mistaken for an intra-peritoneal exudation, with which it has a great tendency to combine; it is distinguished by its diffuse border gradually emerging into the parenchyma of the broad ligament, and its marked retro-vaginal position, pushing the cervix forwards and upwards. As a rule, parametranal exudations are situated laterally. If they be of large size they extend into the broad ligament, so that a phlegmon of the latter may be a continuation of a parametranal inflammation. Still, phlegmon of the broad ligament may be primary, and of various sizes and positions, implicating perhaps the whole of the pelvic cellular tissue. These nodular exudations project downwards, shortening the contiguous portion of the vagina, and can be only felt through the abdominal walls when very large. Their contour is irregular, lumpy, gradually passing into healthy tissue, and, as a rule, fixing the uterus to the pelvis.

As previously stated, Dr. Spiegelberg considers the pathological importance of the parametranal tissue the greater; and in studying the etiology of the affection, the truth of this assertion is very apparent. Any injury to the lower segment of the uterus and upper portion of the vagina, however brought about, may set up inflammation of the tissue. It is no accidental coincidence, as no gynæcological affection is so frequent, not only as the result of child-bed, but also from any lesion. The limits of the disease are entirely dependent upon the idiosyncrasy of the patients, and beyond the control of art. Septic parame-

tranal phlegmon, and even septicæmia, have followed the most trivial wounds. Its spontaneous origin from so-called internal causes cannot, Spiegelberg thinks, be denied. Primary phlegmon of the broad ligaments chiefly originates spontaneously, proceeding from tumefaction of the membrane surrounding the situs of the ovary through some irritation of that organ, or from some small menstrual hemorrhage into the broad ligament. Now and then they take their origin from external injuries.

He believes that pelvic peritonitis originates occasionally as a sequence of paracervical inflammation; from contusions and lacerations of old standing, false membrane, the results of a previous confinement; but generally from an endometritis and salpingitis, or from some menstrual disturbance. In the former it is principally the result of a gonorrhœal inflammation, in the latter it comes through the retention of some small clots in the above organs, causing extravasations into the peritoneal cavity, and on the surfaces of the Fallopian tubes and ovaries.

He sums up by saying: "Parametranal nodules proceed from some pathological condition of the lower section of the internal genital organs. Plegmon of the broad ligaments follows parametranal phlegmon, or springs from the parovarian membrane. Pelviperitonitic exudations accompany affections of the uterus and the Fallopian tubes, particularly of its internal surface; the latter are less frequent than the former and are most generally secondary; they never progress so insidiously as inflammations of the cellular tissue tend to do. Only at an early date, by careful examination, can the course of the development of the disease be learned. Frequently enough, this knowledge is concealed. The history of parauterine and periuterine inflammation will long be a fertile field of clinical, as well as of anatomical and gynæcological observation."—*London Med. Record*, April 22, 1874.

—

Effective Remedies for Ulcerations of the Os Uteri.

Julius Brandt (*Medizinisch-Chirurgishe Centralblatt*, March 27, 1874), in cases of chronic induration and erosions of the cervix, believes that the disease is in great measure kept up after the affection of the uterus, which in most cases is the primary cause of this affection, has been relieved, by the purulent and decomposing secretion of the vagina. To prevent this, taking care first of all to remove any decomposing matter off the sore by wiping it with a solution of chloride of lime, he applies a piece of fine charpie dipped in a preparation of one ounce of glycerine, two drachms of tincture of catechu, and one drachm of balsam of Peru, and placed carefully on the raw surface, and encases it with dry charpie, so as to completely surround the vaginal portion of the cervix. This application is used twice a day. The author mentions a case where he cured a lady in five months, who for upwards of six years had consulted innumerable doctors and tried every conceivable remedy. When there are hyperæmia and a granular state of the ulcer, he omits the balsam of Peru. The constitutional treatment should never be neglected when it arises from some internal catarrhal condition. Where it is only a slight erosion, he recommends touching the part with the solid stick of nitrate of silver, or a solution of the same, in preference to any other application. The use of leeches should never be forgotten, especially in hyperæmic conditions of the cervix, but great care should be taken not to apply them to an eroded spot, as it only increases the mischief. Baths of salt water are of great service, but they must be persevered in regularly for months.—*London Med. Record*, April 29, 1874.

—

On Primary and Isolated Carcinoma of the Body of the Uterus.

Professor Spiegelberg (*Archiv für Gynäkologie*, vol. vi. part i.) relates a case where there was destruction of the posterior wall and fundus, and enucleation of the cancer mass. It occurred in a woman forty-nine years old, sterile; she had menstruated regularly up to forty-five. During the last year, she had been subject to a continuous bloody discharge. With its appearance she be-

came affected with severe pains, more intense at night. On examination in October, 1872, the body of the uterus was found uniformly, but not very considerably enlarged, and retroflexed; it could not be redressed, and was very tender to the touch. The cervix was long, and did not participate in the swelling. The cervical canal was narrow, and discharged a profuse purulent secretion. An intra-uterine growth being suspected, an attempt was made to dilate the cervix with laminaria and sponge-tents, but the internal os opposite where the flexion was would not yield. It gave rise to great pain. Hypodermic injections of ergotine were used for eight days, and had the effect of making the uterus harder and shortening the cervix. In January, 1873, the patient being worse, she was again examined. The discharge was less, but ichorous and offensive. The uterus was still retroflexed, the under surface enlarged, and the cervix shortened. This being regarded as an indication of the descent of the supposed tumour, the cervix was rapidly dilated with sponge-tents. On making a digital examination, the posterior internal surface of the uterus was found diffusely infiltrated and covered with friable masses, extending upwards to the anterior surface.

As far as possible the whole of these masses, which filled about the hollow of the hand, were removed with the curette. The hemorrhage was trifling, and the reaction slight. The pain and discharge ceased, and the patient improved rapidly. This operation was performed on February 8th. The pain having returned on the 24th, the cervix was again rapidly and thoroughly dilated, and projections and unevennesses were again scratched off. The elevations had extended more to the upper and left surfaces with intermediate ulcerated spaces. The bleeding was slight. Soon afterwards the patient collapsed and died the next day, with symptoms of peritonitis from perforation.

The *post-mortem* examination showed extensive purulent peritonitis. The posterior surface of the uterus and the fundus were firmly adherent to the bottom of Douglas's pouch and the anterior wall of the rectum, completely obliterating the Douglas's pouch. The sigmoid flexure with its mesentery were attached to the anterior surface, and opposite the point of attachment there was a small opening communicating between the cavity of the uterus and the abdomen. The cervix was healthy; the anterior wall was infiltrated with pale yellow-coloured medullary masses.

The posterior wall, together with the cervix, only measured between one and a half to two inches in height. The rest, with the fundus, was gone. An examination with the microscope by Prof. Cohnheim showed the carcinomatous character of the infiltration.

There can be no doubt that the operation was the immediate cause of death. The diagnosis upon which it was performed proved to be correct, viz., that it was epithelioma, and consequently the operation was justifiable.—*Lond. Med. Rec.*, April, 1874.

—

Expulsion of a Uterine Fibroid.

At the meeting of the Berlin Gynæcological Society, on December 9 (*Berliner Klinische Wochenschrift*, April 20) Herr KAUFMANN reported a case of spontaneous expulsion of a large fibroid of the uterus in a woman aged forty who had borne two children. Two other cases were related by members present; in all these cases the recovery was most rapid.—*London Med. Record*, June 7, 1874.

—

The Liver mistaken for an Ovarian Tumour.

Dr. JOHN K. DALE reports (*Richmond and Louisville Med. Journ.*, April, 1874) the case of a young lady, operated upon for supposed ovarian tumour. Upon opening the abdominal cavity the ovaries and uterus were found to be healthy, although displaced by pressure of the liver. The liver was free, movable, much enlarged, occupying the right half of the pelvis, and encroaching upon the bladder and rectum. The incision was closed and the patient is reported as "doing well."

Medical Jurisprudence and Toxicology.

Tests for Blood.

At a late meeting of the Boston Society of Medical Sciences Dr. Wood (*New York Med. Journ.*, June, 1874) made some remarks concerning the delicacy of some of the chemical tests for blood; especially of the tungstate of sodium test, a new one, based upon the fact that hæmoglobin can be precipitated *as such*, from extremely dilute solutions if there be added to such solutions a saturated one of tungstate of sodium, which has previously been acidulated with acetic acid, and the mixture heated to boiling. This reagent forms with the hæmoglobin a substance which has a chocolate-brown colour (specimen exhibited), and is insoluble in water. Its exact composition is unknown. Ammonia-water and the fixed alkaline hydrates dissolve this precipitate, producing a coloured solution (specimen exhibited), having the same appearance as the alkaline solution of a corresponding amount of blood. By means of this reagent Dr. Wood had precipitated the blood-pigment from a solution containing of dried blood one part in 5500 of water, and had also precipitated the pigment from a solution which showed only the hæmatin spectrum, and in which, therefore, the hæmoglobin had been destroyed. The chief advantages of this test are: 1. That it enables us to precipitate the pigment not only from fresh solutions, but also from those which have undergone decomposition. 2. That it enables us to concentrate a very dilute solution, and is of great delicacy. 3. That it enables us to preserve a given specimen of pigment for an indefinite length of time, since the precipitate can be washed and dried without losing any of its properties. 4. That the purity of the pigment can be insured by thorough washing with water and dilute acids. 5. That Teichmann's test can be susequently applied to the precipitate, and hæmin-crystals obtained (a specimen of crystals thus obtained was shown under the microscope). 6. That the iron test can be applied to this precipitate as well as to the hæmin-crystals, and with much greater ease.

This last test is far superior to any other when we have a diffused stain on cloth to deal with—one, for instance, in which an attempt has been made to wash or soak out the original stain with water or other liquid. In such a case the cloth should be soaked or washed in a dilute solution of iodide of potassium, which is a much better menstruum for removing blood-pigment from cloth than pure water. This solution can then be treated with tungstate of sodium, and boiled. The precipitate can then be collected, purified by washing, and one portion tested by Teichmann's test, another by the iron test, and the rest by a drop or two of ammonia-water to show the red colour.

—

Poisoning by Coffee.

H. Curschmann gives in the *Deutsche Klinik* for 1873 (p. 377–380) a careful report of the case of an anæmic woman, who, having a groundless idea that she was pregnant, took, for the purpose of procuring abortion, an infusion of 250 grammes of slightly roasted coffee in 500 grammes of water. Two hours and a quarter afterwards, her mind was confused; the countenance was pale and very anxious, and there was violent trembling of the limbs; she had very severe dyspnœa; the breathing was difficult and quick, while the state of the lungs was normal. The pulse was frequent and very tense, and the arteries were contracted; the action of the heart was violent; there were frequent diarrhœa with tenesmus, and frequent discharge of large quantities of urine of low specific gravity. In the evening, there was an improvement under the influence of morphia; and on the third day the patient had quite recovered.—*Brit. Med. Journ.*, Feb. 7, 1874, from *Centralblatt für die Med. Wiss.*, Dec. 13, 1873.

CONTENTS.

Anatomy and Physiology.

Absence of the Corpus Callosum without Disturbance of Intellect. By Dr. Malinverni 49
The Mucous Membrane of the Larynx. By M. P. Coigne 49
On an Anomaly of the Œsophagus causing Starvation. By M. Guéniot . . . 50
On the Occurrence of Cartilaginous Bodies and True Bone in the Penis of an Adult. By Dr. J. von Lenhossék 50
Women with Three Breasts. By Dr. A. R. Kilpatrick and Dr. George Ross. . . . 51
Complete Absence of the Uterus. By Dr. Lamm 51
On the Respiratory Centre. By Gierke . 52
On the Action of Bile in promoting the Absorption of Fats. By Mr. Charles H. Williams 52

Materia Medica and Therapeutics.

On the Mode of Action of Iodine and its Preparations. By Prof. Sée 53
On the Action of the Salts of Soda and Allied Bases introduced Directly into the Blood. By Dr. Blake 55
Influence of Mercury upon the Liver. By Dr. Charles Murchison 55
Solvent Action of the Papya Juice on the Nitrogenous Articles of Food. By Dr. G. C. Roy 57
On the Use of Hydrargyrum Oleinicum. By Dr O. Martini 58
On Sulphate of Quinia as an Abortifacient and Oxytocic. By Dr Chiari . . . 58
On Smoked Glasses. By Dr Dobrowolski . 59

Medicine.

On the Slighter Forms of Typhoid Fever. By Prof. Jürgensen 59
On Diphtheria. By Prof. Bouchut . . . 60
On Cardiac Complications in Croup and Diphtheria. By M. Labadie Lagrave . . 61
Phosphorus in Insanity. By Dr. Willis E. Ford 62
Lancing the Gums. By Dr. James Finlayson 64
Sarcoma of the Pleura. By Dr Gordon . 65
Aneurisms caused by Emboli. By Ponfick . 65
Treatment of Dyspepsia. By Prof. Leube . 66
Perityphlitis. By Dr. Bull 68
Statistics of Intussusception. By Dr. O. Lichtenstein 69
Benzoic Acid for Ammoniacal Urine. By Prof. Gosselin and M. A. Robin . . . 70
Bromide of Potassium in Albuminuric Convulsions. By M. Gimbert 71
A Peculiar Form of Skin Disease in Children By Uffelman 72

Surgery.

On the Treatment of Wounds. By Dr. R. U. Kroenlein 73
Neuralgia treated by Nerve-stretching. By Mr. Callender 74
Capillary Punctures in Glandular Swelling. By Prof. Crocq 75
Paralysis of the Hand and Forearm caused by Esmarch's Bloodless Method. By Dr. Robert F. Weir 76
On the Action of the Continuous Current upon Opacities of the Vitreous Humour. By M. Carnus 77
On a Form of the Disease of the Middle Ear in which the Local Application of Alcohol is especially serviceable. By Dr. J. Patterson Cassells 78
Resection of the Upper Jaw, with Preservation of the Muco-periosteal Covering of the Hard Palate and Incisor Teeth. By Prof. Linhart. 79
Section of the Buccal Nerve by the Mouth. By Dr. J. Panas 80
On the Treatment of Sero-Sanguineous Cysts of the Neck by Electricity. By Dr. Amussat, Jr. 80
On a Rare Form of Scirrhus of the Male Breast. By Prof. Doutrelepont . . . 81
On Amputation of the Penis at the Pubes. By Mr. Henry J. Tyrrell 82
A Novel Method of reducing Paraphimosis. By M. Bardinet 82
Extirpation of the Lower End of the Rectum. By M. Verneuil 83
Aneurism of the Radial Artery. By Mr. Richard Quain 84

Midwifery and Gynæcology.

Thermometry of the Uterus and its Diagnostic Significancy By Dr. Schlesinger . 85
Extra-Uterine Pregnancy. By Drs. J. S. Parry and H. Lenox Hodge . . . 86
On Certain Improvements in the Construction and Use of the Long and Short Midwifery Forceps. By Dr. Thomas More Madden . 87
Imperfectly healed Cæsarean Section a Cause of Death in Subsequent Labour. By A. Willigk 88
Subcutaneous Injections of Ergotine for the Varicose Veins of Pregnant Women. By Dr. Rugge 88
The Influence of Inhalation of Chloroform on the Fœtus during Delivery. By Dr. Zweifel 89
On the Treatment of Vascular Growths of the Urethra without Operation. By Dr. Arthur W. Edis 89
On Pruritus Urethræ and Pruritus Vaginæ. By H. Clements 90
On Exudation in the Neighbourhood of the Female Genital Tract. By Prof. Spiegelberg 90
Effective Remedies for Ulcerations of the Os Uteri. By Julius Brandt 93
On Primary and Isolated Carcinoma of the Body of the Uterus. By Prof. Spiegelberg. 93
Expulsion of a Uterine Fibroid. By Herr Kaufmann 94
The Liver mistaken for an Ovarian Tumour. By Dr. John K. Dale 94

Medical Jurisprudence and Toxicology.

Tests for Blood. By Dr. Wood . . . 95
Poisoning by Coffee. By H. Curschmann . 95

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 381. (*For List of Contents see last page.*) September, 1874.

Anatomy and Physiology.

Anatomy of the Kidney.

R. Haidenhain (*Schultze's Archiv*, vol. 10, part 1) has made some discoveries in the epithelial lining of the uriniferous tubules, which promise to be of considerable importance. He alludes incidentally to the disputed question of the epithelial covering of the Malpighian corpuscles, and states that he has found not only the covering, but, further, epithelial cells among the vascular convolutions. Before discussing his discoveries in the tubules, it may not be amiss to describe, briefly, the changes in size and shape which they undergo in their course. After leaving the Malpighian bodies, they are comparatively large and convoluted; then, becoming much smaller, they run down towards the pelvis of the kidney and return again to the periphery, thus forming "Henle's loops," of which the second or ascending half is the larger in diameter. Next comes a short, dilated, "intercallated" portion, which resembles a piece of the convoluted portion, and empties into the straight tubes which constitute the beginning of the end. The epithelium of the convoluted tubules is very peculiar, inasmuch as it does not consist of separate cells, but of a continuous pulpy mass, in which nuclei are imbedded at pretty regular intervals, together with fat globules and granules. The important part of Haidenhain's discovery is that the epithelial layer of these convoluted tubules is full of little rods pointing to the centre of the cavity and separated from one another by a homogeneous ground substance. Under the influence of certain reagents, nuclei appear among the rods. The author accounts for these appearances as follows: "The protoplasm of the cells which originally lined the convoluted tubules is for the most part devoted to the formation of the rods, between which a small amount of connective tissue (kittsubstanz) remains as a residue of the original formative material. The nucleus is, in all cases, surrounded by a greater residue of undifferentiated protoplasm, which, in some cases, is definitely limited externally, and in others passes without sharp limits into the substance surrounding the rods." The rods cease with the convoluted tubules, and the first half of "Henle's loop" presents the usually described lining of epithelial cells, with prominent nuclei, but the rods reappear in the larger or ascending half of the loop, and continue through the "intercalated" portion to the beginning of the straight tubules. The rods were found to a greater or less extent in the kidneys of animals of various classes, but with such apparent irregularity that no clue to their function could be gained by comparative anatomy. Haidenhain appears to have proved, by certain physiological experiments, that the process of excretion in the kidney is not confined to the Malpighian bodies, but, with praiseworthy caution, he offers no theory as to the function of the rods.—*Boston Med. and Surg. Journal*, March 12, 1874.

—

Accessory Pulmonary Lobe of the Vena Azygos.

Dr. E. W. Collins laid before the Pathological Society of Dublin (*Irish Hospital Gazette*, April 1, 1874) a specimen illustrating this rare congenital condition, taken from the body of a male subject, aged about 50 years, in the

adjacent dissecting-room. The specimen presented a threefold morphological peculiarity as regarded lung, pleura, and azygos vein. An accessory lobe, measuring four inches in length by two and a half in breadth at its widest portion, sprang from the angle between the root and the upper portion of the right lung, immediately above the bronchus. It was somewhat pyriform in shape, and rested upon the right side and front of the bodies of the five upper dorsal vertebræ, in an accessory pleural pouch. The pouch was formed by a duplicature, which depended from the cone of the pleura. It was continuous with the costal pleura externally along a line corresponding to the heads of the five upper ribs, internally along the mesial line of the five upper dorsal vertebræ. Between these points it arched over the accessory lobe, and isolated it from the remainder of the lung. It extended underneath the trachea, and invested the right side of the œsophagus. The azygos vein, instead of arching over the bronchus, arched over the peduncle of the accessory lobe, lying in the lower free margin of the pleural duplicature. Dr. Collins remarked that this was the only specimen of the kind that had been exhibited or noticed in Dublin; and was worthy of the attention of anatomists, as records of only seven similar cases were extant. The question naturally presented itself, was there a necessary mutual relation between the abnormal conditions of the three structures? In explanation, reference was made to the changes which take place in the direction of the vena azygos during fœtal life, stress being laid upon the admirable suggestion of Prof. Cleland, that an abnormal course of the vein during the process of its development, whereby it drew down around it a pleural fold, and thus isolated a probably adherent portion of the lung, offered a sufficiently satisfactory solution of the difficulty. Dr. Collins pointed out that a remarkable confirmation of this theory was to be found in an unique recorded case, hitherto unnoticed in this connection, of a similarly situated accessory lobe of the left lung, where the left azygos vein preserved its fœtal condition by opening into the left vena innominata. Lastly, the more frequent occurrence of the threefold abnormality upon the right side was readily explicable; for, the persistence of the cardinal vein retaining its original connection with the duct of Cuvier, while the normal arrangement upon the right side of the body, upon the left side was far from frequent.

—

Case of Siren-like Malformed Fœtus at Full Time, with a well-formed Penis on the Posterior Aspect of the Body.

Mr. William Maclaren reports (*Edinb. Med. and Surg. Journ.*, Jan. 1874) the following interesting case:—

Early on the morning of the 16th October I was called to attend Mrs. B. in her ninth labour. On reaching the house I found that labour had been progressing steadily for some few hours previously, and on examination found the head in the vulva, and every prospect of the child being born in one or two pains, which was the case. On delivery the child was alive, but soon died. The placenta had undergone considerable fatty degeneration, and was very friable. Considerable hemorrhage followed the expulsion of the placenta, but was soon controlled, and the mother has done well.

Remarks on the Fœtus.

Measurements.

Occ. front	13⅔ in.
Extreme length	18 "
Girth of chest	12¼ "
Weight	4 lbs. 10 oz. 6 dr. imp.
Girth of pelvis	10 in.

From the pelvis downwards both limbs are fused into one pyramidal mass, bifurcating into a fan-shaped arrangement of the feet, the soles pointing anteriorly, and surmounted by three toes on each side of the central line, one in the middle, and one about a line behind, in the dorsum of the mass. Anteriorly, at the junction of the abdomen with the lower extremities, two inches below the

umbilicus and exactly in the mesial line, is a small papular nodule of skin, without any opening.

At a corresponding point posteriorly, and 1½ inches below the coccyx, hangs, like a caudal appendage, a well-formed penis, with a pervious canal, without any trace of scrotum, testis, or anus.

The nates may also be said to be absent. The limbs are joined together in their inner and posterior aspects, so that both patellæ are found on the outer side quite movable. The hip-joints move freely antero-posteriorly only. The knee-joints are indistinctly mobile, and the ankle-joints less so. The nails on the fingers are well developed, fully so on the great toes, and becoming less distinct as they diminish in size. The upper part of the body is, both in measurement and appearance, natural. It is interesting to note that the eldest child of this woman, who lived for twelve years, had a patent foramen ovale.

The specimen has been sent to the Anatomical Museum of the University of Edinburgh.

—

On Coughing.

Dr. O. Kohts (Virchow's *Archiv*, vol. lx. Heft 2, p. 191), for his experiments upon this subject, used cats and dogs. Neither the position of the glottis nor diaphragm was directly observed; the author, like Nothnagel, drawing his conclusions from the occurrence or non-occurrence of the characteristic detonations during coughing. The animals were in no case narcotized. For the production of coughing the author employed mechanical stimulants, feathers, pinching, teasing, squeezing with forceps; chemical irritants (common salt and ammonia), thermal (ice), and electrical stimulants. From his experiments the author draws the following conclusions. By stimulation of the centripetal fibres of the pneumogastric nerve, reflex coughs are produced, and this is proved experimentally:—

1. For the trunks of the pharyngeal and superior laryngeal nerves of the pneumogastric:

2. For the peripheral endings of the pneumogastric nerve in the following areas. Coughing occurred:

(1) On stimulation of the mucous membrane of the pharynx, of the larynx (of the fossa interarytænoidea, of the plica glosso-epiglottica and plicæ aryepiglotticæ), of the trachea, of the bifurcation of the trachea, and of the bronchi:

(2) On stimulation of the costal pleura:

(3) On stimulation of the œsophagus (the experimental proof for a so-called stomach-cough is wanting).

3. There is a central cough which can be produced by direct stimulation of the medulla oblongata (*vagus*).—*London Med. Record*, July 15, 1874.

Materia Medica and Therapeutics.

On the Mode of Action of Iodine and its Preparations.

In the previous number of this Journal we published a portion of a lecture by Professor Sée on the Action of Iodine. In that part, the mode in which it reached the blood was mainly discussed; in the present, its effects after reaching that fluid are chiefly considered.

Chemistry has taught us nothing touching the action of iodine on the blood: it is neither plastifying nor liquefying; moreover, the blood is not the medium in which the principal phenomena take place. This liquid, according to Claude Bernard, is merely a medium in which the organs live. The corpuscles constitute all that is alive in the blood; and in designating the latter "liquid flesh" certain *savants* have given a definition more poetic than scientific. The inter-

changes of the gases introduced and expelled by respiration are entirely physical phenomena, which do not in any way prove that the blood is a living substance, excepting of course its corpuscular element. From this Professor Sée concludes that iodine does not act on the blood, or, if it does, its effects are difficult to be demonstrated—at least clinically.

Action on the Circulation.—The circulation is manifestly modified by the administration of iodine. The beats of the heart are accelerated, particularly if the pulse be calm; and this effect is produced, whatever be the dose employed. If the pulse is already frequent, it will not be accelerated to a remarkable degree. These facts have been brought to light by the regretted M. Kuss, of Strasburg, by whose death science has sustained a great loss; but in asserting that in giving the iodine in considerable quantity no untoward effect was produced, he did not explain the cause of this singularity. The explanation is found in the rapid elimination of the drug whilst the circulation of the blood is accelerated. M. Sée therefore concludes, with Puche, that in certain individuals enormous doses must be administered to produce the desired effect, instead of small doses that are so timidly prescribed. In varying the dose of the iodide of potassium according to individual cases, we shall soon find out that the small dose of one gramme (about sixteen grains) a day produces as much an effect as that of three grammes. Here not only is the general circulation accelerated, but hyperæmia of all the organs takes place—the skin is covered with papules, erythema, acneform pimples; sometimes the skin and subjacent cellular tissue are congested and become the seat of a sort of œdema, which is principally visible in the eyelids; the conjunctiva is injected, which may be followed by ophthalmia; the mucous membrane of the throat is also affected; the pharynx and tongue are swollen, as also are the mucous membrane of the larynx and probably that of the bronchi, followed in some cases by dyspnœa and catarrh; even the expectoration may be sanguinolent; the mucous membrane of the stomach is excited; the functions of the uterus are modified, or rather exaggerated, resulting in menorrhagia—hence the utility of iodine in amenorrhœa and dysmenorrhœa. These divers phenomena of congestion have been described as the commencement of iodism; but M. Sée looks upon them as the physiological effects of the drug, and that they are not particularly due to large doses, in proof of which he states that after having swallowed two grains of the iodide of potassium, and even less, all the symptoms of iodism may be observed; and this dose is certainly not toxic. The phenomena of iodism under these circumstances are temporary, but the patient should always be warned of their possible occurrence. If, on the other hand, large doses are at once administered, we shall not have iodism, but poisoning by iodine. Such cases are not numerous, but some are known to have occurred, and among others, the death of a young German lady, who was treated and killed by her countryman Dr. Rose. This practitioner injected iodine into an ovarian cyst of which the patient was the subject; this was followed by serious consequences. He described minutely, and by the hour, the tragic scene that was taking place. As soon as the injection was practised, a convulsive spasm of the arteries followed; the pulse, hardly perceptible, was very frequent; the heart beat violently; the patient became cyanosed and felt a sensation of intense local cold. The spasm lasted sixty hours, after which the patient became red, the arteries were relaxed, the heart beat feebly, and death occurred on the fourth day. There was no increase of temperature, from which it may be inferred that there was no iodic fever as affirmed by Dr. Rose. Such are the symptoms of poisoning by iodine, which, it may be seen, do not resemble those previously described.

Action on Innervation.—Whatsoever the dose of iodine absorbed, the patient experiences frontal headache and even well-marked neuralgia of the trifacial nerve. The cephalalgia is due to coryza, the neuralgia of the trifacial nerve to congestion of the sinuses. But besides these nervous phenomena there are others which are known under the name of iodic intoxication, characterized by giddiness, hallucinations, trembling; these are disturbances of the circulation. During the giddiness there is contraction of the arteries, as in the case of Dr. Rose's young patient; this is already the commencement of

poisoning. According to M. Sée the nervous system is at first modified only in its circulation; but when strong doses of the iodine are administered, short of poisoning, the nervous substance is affected. From this it may be inferred that iodine indirectly favours regeneration, the re-constitution of the tissues, particularly the nervous elements.

Elimination of Iodine.—Iodine is easily eliminated, and appears in the urine, the saliva, and that soon after it has been ingested; but traces of the drug are still found in these secretions several weeks after the patient had discontinued it. In its elimination, iodine modifies the textures of the organs through which it passes—kidneys, skin, mucous membranes. But its action is complex, and it is very possible that the local hyperæmiæ it determines are only due to the passage of the iodine; and, in fact, these congestions are almost distinct from the modifications of the general circulation. A patient, for instance, takes a dose of iodide of potassium at ten o'clock, at eleven his conjunctivæ are congested and the lachrymal secretion is increased. It may be that this congestion is the effect of the passage of the iodine, which is deposited on the mucous surface, and there produces irritation caused by its direct application; we have therefore to consider the direct action of iodine on mucous membranes, and another action, more general and more powerful, which sometimes produces deep inflammation. This can be shown for the mucous membrane of the stomach. If two individuals take iodide of potassium, one may feel none the worse, whereas the other loses his appetite, has a metallic taste in his mouth, and falls off in flesh. Why should there be this difference? The simple contact of the iodine causes an increased secretion of the gastric juice. The iodine is absorbed, then eliminated by the stomach; and according as the latter is more or less deeply attacked, the appetite will be more or less affected. Unfortunately, one cannot foresee how it will act, but we should not forget that in small doses iodine is often appetitive, because it increases the secretion of the gastric juice. We should, however, remember that the elimination in the stomach takes place through the peptic glands, and that in its passage the iodine destroys a certain number of these latter. This action of elimination may produce evil consequences, and the greatest circumspection is therefore necessary in the employment of this heroic but dangerous remedy.

The iodide of potassium has been prescribed to stop the vomiting of pregnant women, but for this it is not equal to alcohol nor to the bromide of potassium.

The iodide of potassium has a certain action on the kidneys; it may produce nephritis, destroy the tubuli uriniferi, and produce albumen in the urine; but all metals do this, so we cannot make a special complaint against iodine in this respect. This leads us to the study of the composition of the urine in individuals who take iodine, which will enable us to give the drug its proper place in the therapeutic *cadre*. If the effetè matter of the organism, or the urea, be diminished during the use of iodine, it is because this latter is a substance that prevents the waste of the tissues (*medicament d' épargne*). Such was the conclusion arrived at by M. Rabuteau, who, in his experiments, found a diminution of urea; but it may be objected that these experiments are not absolutely rigorous. M. Rabuteau subjected himself to a certain diet for five days; he measured the quantity of urea which he excreted each day, and found twenty-eight grammes as the mean; on the fifth day he took iodine, and found no more than twenty-four grammes of urea in his urine. The experiment ought to have been more precise. M. Rabuteau ought not only to have weighed the ingesta, but he ought to have ascertained the quantity of nitrogen; he should then have measured the quantity of nitrogen eliminated by the different outlets. When the balance between the nitrogen absorbed and that eliminated is properly ascertained, it is only then that one can fairly estimate the results produced by a particular drug or any other substance. This is what was done by M. Beck in the case of a syphilitic patient; the results of this observation were negative, and the deduction was that iodine does not act on the composition and decomposition of the tissues. But M. Bouchard declares, on the contrary, that, according to his own personal experience, iodine increases the quantity of urea excreted daily, particularly in diabetics. The natural conclusion is that iodine is not a destructor of the economy. Professor Sée protests against the

conclusions of M. Bouchard, and brings clinical proofs against the arguments of the latter gentlemen. Diabetics, continued the Professor, do excrete more urea than a person in health. According to the learned Professor, it was not the iodine absorbed that manufactured the excess of urea; it found it in the economy, and it did no more than eliminate the urea, just in the same way that it draws away all that it meets with in its course. If in syphilitics it meets with mercury, the iodine favours its expulsion in forming an iodo-mercuro-albuminate; if, on the other hand, the mercury is combined with the blood, muscles, bones, or nervous tissue, the iodine, in regenerating all the vitiated molecles, expels the mercury indirectly by the formation of new elements. The following is a summary of the therapeutic applications of iodine:—

It is employed to eliminate all the poisons which may impregnate the economy —syphilis, mercury; it has also been employed as an eliminative in gilders' and lead poisoning, and in arsenicophage.

The mucous and serous membranes are modified by iodine, and it is given in asthma, albuminuria, ascites, pleurisy, etc. It is employed as a "dissolvant" in glandular swellings, and it produces excellent effects on goitre; but it also exercises a certain influence on the breasts and testicles, which it atrophies. It is useful in a great number of chronic affections by dissolving certain products which it eliminates; thus it is employed in diabetes, scrofula, syphilis, etc.

In fine, iodine is a most useful drug, but it is a two-edged instrument, difficult to deal with. It is a local "atrophiant;" it has no ill effects on the general health; it is a "*revivificateur*," like oxygen.—*Med. Times and Gaz.*, April 18, 1874.

—

The Physiological Action of Apomorphia.

Max Quehl, in an inaugural dissertation (*Medicinische-Chirurgische Rundschau*, Heft ii., 1874), gives the results of a series of experiments he has performed, under the guidance of Professor Köhler, on the effects of apomorphia-muriate upon frogs and dogs, the alkaloid being applied partly in the form of powder, and partly in a solution containing 1:50 parts of water. He finds that when subcutaneously injected, which is the best method of administration on account of the small amount of irritation it excites, vomiting is caused in dogs by a dose not exceeding ½ to 2 milligrammes; in man, from 6 to 7 milligrammes are requisite. When given by the mouth in dogs, 3 to 4 centigrammes constitute a certain dose, but 1 centigramme is uncertain. In the case of man, 12 to 18 centigrammes are required to produce the effect with certainty. When introduced per anum, 6 centigrammes are required in the case of the dog, and in man from 18 to 36. Placed upon the tongue from 1 to 2 centigrammes are required for dogs. Infrication of apomorphia ointment into the skin of the inner side of the thigh, and the introduction of plugs with apomorphia ointment smeared over them, into the vagina, had no action. The experiments upon the effects of the introduction of large doses of apomorphia, 1½ to 6 grains subcutaneously, gave interesting results. No vomiting followed them, but the drug had a narcotic effect. The animals performed the movements of manège and running round in a circle; there were reduction of reflex excitability and paresis of the hind legs. The pupil was frequently dilated and, as a subseqnent effect, loss of appetite, which remained for two days, and general depression. Death did not occur in any case, even when large doses were administered. The effects, after moderate emetic doses, upon the pulse, temperature, and respiration, as observed by Quehl, agree precisely with those observed by Siebert. Nutrition underwent no change; so that an animal made to vomit once daily at least by means of amorphia for at least several weeks, exhibited an increase of 2½ lbs. In regard to the action of apomorphia upon the nervous and muscular systems, and upon the circulation, Quehl thus sums up his results: 1. Apomorphia affects neither the motor nor the sensory nerves. 2. After section of the vagus, its emetic effect ceases. 3. The curve of the muscles in contraction is not in any way modified in the case of the frog. 4. There is no evidence of influence upon the vaso-motor nerves, nor of any paralyzing influence upon the reflex action of the sensory nerves upon the vaso-

motor centre through the spinal cord. The main conclusion to be drawn from the whole of the experiments is, that apomorphia in small doses is to be regarded as the best and least dangerous of all emetics. In the discussion at the Leipsic Society of Natural Sciences, after the reading of the paper, Mosler stated that he agreed with the author in regard to the emetic properties of apomorphia in fresh solution, but that he had found that when the solutions were five or six days old the phenomena of intoxication with the drug occurred. Köhler stated that he had found that after some weeks, though the solution had acquired an intense emerald-green colour, it yet had lost little of its activity. Riegel, who had made upwards of seven hundred experiments with apomorphia, said that he did not regard it as very decomposable, and that, in opposition to Quehl, he had noticed vomiting after section of the vagus. The vomiting, he thought, must be explained on the idea of the action of the drug on the central nervous system, since, after a series of sections of the spinal cord, he at length arrived at a plane, after which no vomiting follows.—*Practitioner*, June, 1874.

—

On the Physiological Action of Hydrocyanic Acid, and the Pretended Antagonism of Hydrocyanic Acid and Atropia.

Preyer affirmed that atropia was a certain antidote to hydrocyanic acid (*Die Blausäure physiologische übersucht*, Bonn, 1868–1870). Prof. R. Boehm and A. Knie (*Archiv für Experimentalle Pathologie und Pharmakologie*, Band ii.), from their experiments, show that Preyer's affirmation is incorrect. They experimented for the most part on cats, which were often narcotized with chloral, which they recommend for this purpose. In all experiments tracheotomy was performed. Pryer employed almost exclusively rabbits. The hydrocyanic acid employed was the officinal, containing 2 per cent. It was always injected into the jugular vein. Preyer applied the drug to wounds, or to the mucous membrane, or injected it into the subcutaneous tissue, or let the animal respire it. The drug is most active when injected direct into the veins, and next to this comes inhalation.

The authors then criticize Preyer's experiments, and from their own investigations arrive at the following results:—

1. Hydrocyanic acid acts on the central nervous system, the functions of which are abolished by large doses after stimulation. *i. e.*, increase, of short duration. 2. The disturbances of respiration and circulation arise from analogous changes in the activity of their centres in the medulla oblongata. 3. The vagus does not play a part either by the action of hydrocyanic acid on the respiration, or by that on the heart. 4. Atropia is no antidote for hydrocyanic acid; the only rational method for the treatment of poisoning by this consists in the application of artificial respiration.—*London Med. Record*, July 8, 1874.

—

Bromide of Camphor.

At the last sitting of the Société de Biologie Dr. Bourneville made a most interesting communication on the physiological action of the bromide of camphor ($C_{10}H_{16}OBr$). From his various experiments, conducted on guinea-pigs and on cats by the hypodermic method, he draws the following conclusions: 1. Diminution in the number of cardiac pulsations. 2. Diminution in the number of inspirations. 3. Fall of temperature (in a cat of three months which had received ten grains of the bromide, the temperature fell from 38° C. to 21° in seventy-one hours). The sedative properties of bromide of camphor are also shown by other phenomena. The animals to which such small doses as two or four grains of the substance were administered, fell into a state of marked torpor, which, under the influence of stronger doses, became so profound as to lead the experimenter to think that the animals were dead. When taken up in the hands they were motionless and flabby. A violent pinch would wake them, showing that sensibility was not abolished. In both kinds of animals, during the whole duration of fall of temperature and torpidity, only

slight tremulation was observed; but when the temperature rose and the animals awoke, convulsions supervened, but only in the cats. According to Dr. Bourneville the animals did not soon get accustomed to the drug. Another interesting fact which he mentioned was the speedy loss of flesh under the influence of the drug. Dr. Bourneville wound up by asserting that bromide of camphor was a most powerful sedative.—*Lancet*, June 20, 1874.

—

Antiseptic, Antifermentative, and Disinfectant Properties of Perchloride of Iron.

The following is a *résumé* of these properties, discovered by the eminent chemist Carlo Paresi:—

1. Meat, fish, etc., immersed in a dilute solution of perchloride of iron, are preserved without putrefaction. Removed from the bath and dried in the air, they assume a stony hardness, and become slightly brown and inodorous.

2. The addition of a small quantity of perchloride of iron to cow's milk causes the immediate separation of the caseine in the form of a flaky magma; and, exposed to the air, the caseine, the butter, and the serum, are exempt from decomposition, even after the lapse of a considerable time.

3. The addition of a small quantity of perchloride of iron to urine causes a white precipitate. Exposed to the air at the ordinary temperature, even for a considerable time, there is no development of ammonia from the urea, and the urine remains inodorous.

4. Blood recently drawn from the veins, to which the iron is added, immediately forms a compact clot, and, exposed to the air, is preserved without putrefactive fermentation.

5. The seeds of the ceralia immersed for twelve hours in a solution of perchloride of iron, and afterward planted, do not germinate.

6. The addition of ammonia in excess to the solution of perchloride of iron causes the precipitation of peroxide of iron, with the immediate disappearance of the ammoniacal odor. Here, besides the precipitate of the peroxide of iron, chloride of ammonia is also formed and remains in solution. The excess of ammonia is no longer perceptible, in consequence of the *sui generis* disinfecting action of the perchloride of iron.

7. The sulphate of potassa, dissolved in water, immediately presents a yellowish-red precipitate, on the addition of perchloride of iron, and the odor of the hydro-sulphuric-acid gas disappears.

8. A solution of perchloride of iron, poured on to paper amidorized with iodide of potash, produces a blue color at once. Paper saturated with tincture of guaiac, to which it is added, immediately assumes the characteristic azure tinge. "If we are not deceived, these reactions are produced by ozone, which exerts a great hygienic influence on the animal organism in all those contingencies in which the air is contaminated with parasites, deleterious gases, and miasmatic emanations."

9. Mustard or bitter almonds, reduced to a liquid paste with perchloride of iron, are prevented from forming the essential oils characteristic of these substances.

10. The solution of perchloride of iron mixed with wheat flour and yeast prevents the bread-fermentation; with the must of grapes, the vinous fermentation; and with sugar or honey, the alcoholic fermentation.

11. Finally, perchloride of iron placed in contact with metallic mercury, and properly rubbed in a marble mortar, is rapidly reduced into minute particles of a bluish colour; to this is added axiunge, and the rubbing continued for about a quarter of an hour An extremely well-prepared mercurial ointment in which, even with a strong glass, no particle of metallic mercury can be seen, is thus obtained. The iron may be washed out with water.—*N. Y. Med. Journ.*, June, 1874, from *La Nuova Liguria Medica*, February 20, 1873.

On Carbolized Resin-Cloth.

As an antiseptic dressing, Mr. Lund recommends the use of a carbolized resin-cloth in the place of the ordinary cerecloth, the effect of the addition of resin being to neutralize the acrid properties of the carbolic acid, which still evolves an antiseptic vapour at the temperature of the body. He uses a very thin calico gauze, and the solution for its saturation is prepared as follows (*British Medical Journal*, December 6, p. 654):—

Carbolic acid crystals (melted)	2 fluidounces.
Castor oil	2 fluidounces.
Purified resin	16 ounces.
Methylated spirit	40 fluidounces.

To the resin liquefied by heat and removed from the fire is added one-third of the spirit; when these are well mixed, another third of the spirit in which the oil has been previously dissolved is poured in; and lastly the acid dissolved in the remainder of the spirit is slowly added. The whole must be agitated until all the ingredients are thoroughly incorporated and afterwards passed through a muslin filter to get rid of extraneous matters. If this plan be not adopted, the resin will concrete into a mass at the bottom of the vessel, and it will be extremely difficult afterwards to get it perfectly mixed. Thus prepared, the solution is of a dark colour, clear, and free from any deposit, and can be kept unchanged for a long time in a well-corked bottle. The castor-oil is added that the cloth may retain its flexibility after the evaporation of the spirit.

To prepare the resin-cloth a very cheap, thin, porous calico, or calico-muslin, is selected, known in the trade as "mulls;" it should be unbleached, and free from dressing. This is divided into strips of about nine inches wide, and six yards long. The strips are carefully folded so as to lie flatly in a tin box, made so as to receive the plates of a tincture press, or an ordinary copying press, and having an aperture at the bottom of the box, with a tap so that the superfluous fluid can be removed and reused. The solution is poured over every layer of cloth successively, so as to wet every portion of it; next the pressure is applied, and the calico squeezed as dry as possible, then taken out and hung for a few hours in a well-ventilated, warm room, till all traces of smell of methylated spirit have departed. The cloth may afterwards be rolled up and kept in tin cases ready for use. It appears to be necessary to dry it thoroughly, as the presence of any traces of the methylated spirit is apt to cause irritation.—*London Med. Record*, April 8, 1874.

Medicine.

Dengue.

Dr. H. C. d'Aquin contributes to the *New Orleans Med. and Surg. Journ.*, July, 1874, a short paper on dengue. He defines it to be a fever with two paroxysms, separated by a short remission, and lasting five full days.

The first paroxysm, *period of invasion*, sets in abruptly with a high temperature, the exact degree of which could not be ascertained, on account of the difficulty of seeing the patient at the very moment of the invasion. The *defervescence* that terminates this period, is either slow, or rapid, and ends in a period of calm, or *remission* of short duration, which is immediately followed by a quick, or a lingering rise—*effervescence*, terminating by a high temperature the acme of the second paroxysm or *exacerbation*. The second defervescence, which is generally lytic, without, or with very small evening rises, comes after, and terminates the disease by a fall to the normal point, in the early part of the

morning that follows five complete twenty-four hours. which is generally the morning of the sixth day, or the seventh when invasion took place after mid-day on the first day.

An eruption which could not be detected in all the cases, mixed as it were with lichen agrius and other eruptions, the product of excessive summer heat, appears at the very fastigium of the invasion, follows it through all its periods, becoming paler during first defervescence and remission, stronger marked during effervescence and fastigium of exacerbation, disappearing, and desquamation taking place during and after second defervescence.

Observations of the temperature during the course of the disease show:—

1st. That the remission between the two high temperatures rarely comes to the normal point, but stops at a few tenths of a degree above or below 38° Cent, 100.4° Fahr., not being a period of apyrexia, but a diminution of heat of short duration.

2d. That the remission does not always fall on the same days, but sometimes on the third or on the fourth day.

3d. That the exacerbation shows a high peak also on different days, on the third, the fourth, and even the fifth.

4th. That notwithstanding this fall of remission and exacerbation on different days, the disease completes its evolution in five times twenty-four hours, in nearly all the cases; the time of the excursus of the effervescence and defervescence constituting the paroxysms, being longer or shorter, in order to compensate the time of the complete evolution of the disease.

5th. That each of the paroxysms lasts separately from forty-eight hours to three days and a half; but that the time of their evolution is not generally the same.

6th. That the pulse follows faithfully the rise and fall of the temperature, throughout all the periods, the two lines being parallel mostly all the time.

—

On Tertiary Syphilis.

Fournier (*La France Médicale*, May 23, and June 3, 1874) defines tertiary syphilis to be that group of manifestations which is developed when a long interval has elapsed since contagion. He says the natural tendency of syphilis is to reach the tertiary period, though it is not of necessity attained by all the affected. He believes the following reasons to explain why some individuals are attacked more than others. 1st. The conditions peculiar to the individual, such as weakness of constitution, scrofula, lymphatic or anæmic conditions, chronic alcoholism, old age, and any depressing cause, though they have a certain predisposing power, may not unfrequently be all absent and yet the disease may be developed. 2d. A far more potent cause of tertiary affections is absence or insufficiency of treatment in the early period of the disease. Throughout his paper Fournier insists upon the disastrous effects produced by "expectant" or "simple" treatment of syphilis. In attempting to distinguish between the periods of secondary and tertiary affections respectively, Fournier acknowledges the impossibility of laying down a hard and fast line between the two periods. The disease passes from the earlier to the later stages in one of two ways. In one, the phenomena gradually change from one form to the other, or the later ones appear before the earlier forms have wholly disappeared. In the other, a more habitual one, there is an interval of quiescence before the tertiary affections break out. As a general rule, tertiaries are rare before the second or third year, while the interval may be prolonged frequently for ten to twenty years; and Fournier relates a case from his own experience where the tertiary period had continued fifty-five years after infection. The general character of the tertiary period is one of full health interrupted by morbid phenomena, which have no stated period for their appearance, but may occur and recur during many years, indeed, while life lasts. When present they are scattered, even isolated or solitary, while no part of the body is exempt; their outset is insidious, their development slow, and in many latent. Their anatomical seat is the parenchyma of the tissue attacked, the deeper structures rather than the superficial part. Thus they destroy the tissue or organ in

which they are developed. They set up two kinds of tissue-change; one, inflammatory fibrous increase and contraction of the parenchyma; the other, the gummy tissue peculiar to syphilis. Lastly, tertiary syphilides are almost always curable.

In establishing the diagnosis of tertiary syphilis, attention must be paid to three points: 1. Special characters; 2. Coexistence of specific affections elsewhere; 3. Previous syphilitic affections. But any of these conditions may be wanting, and render the diagnosis often dependent on two or even one of the others. With regard to the special character of the affection, unfortunately tertiary syphilitic affections more often want special characters than possess them. Most frequently, again, the affection is isolated, the sole one present. Again, the history of previous syphilis is most commonly wanting, in women as often as in one out of four or five cases. Former syphilis is often forgotten or not suspected, on account of the length of time that has elapsed, and the determination of some patients to deny any fact which casts a slur on their moral conduct. This obstinacy, combined with the social reputation of the patient, sometimes puts the questioner off his guard. All these circumstances impede the practitioner in reaching a true diagnosis.

The prognosis of tertiary syphilis is always serious, often grave, and more often fatal than is generally believed. It is influenced by position and by the condition of the patient. Nevertheless, speaking generally, tertiary affections are eminently curable (*i. e.* the lesions, not the diathesis). Though the iodides alone, or combined with mercury, are the remedy *par excellence*, there are cases in which both these remedies fail. For example, over the inflammatory changes produced in an organ by the irritating presence of the syphilitic affection, mercury and iodine have little or no influence. In conclusion, Fournier insisted most strongly on the great importance and possibility of *preventing* tertiaries by a well-sustained and prolonged treatment of syphilis in its early stages. He attributes much of the subsequent disease to the inefficient treatment of the patient during the first two years after infection, and utters a powerful protest against the custom of withholding mercury when the early symptoms begin to abate. At this time, it should be continued steadily for several months after the patient is apparently well.—*London Med. Record*, July 1, 1874.

—

On a Case of Pseudo-hypertrophic Muscular Paralysis.

Drs. J. Lockhart Clarke and W. R. Gowers reported (*Brit. Med. Journ.*, June 13, 1874) the following case at a late meeting of the Royal Medical and Chirurgical Society.

The case was that of a boy, a patient of Mr. William Adams, who died, aged fourteen, with general muscular atrophy. The muscles of the calf had been, from an early age and until within two or three years of his death, considerably larger than natural. Difficulty in locomotion, due to muscular weakness, had been noticed from the time when he commenced to walk at three years old, and had increased until he had ceased to walk at eight, and to stand at ten. During the last three years of his life, the calves lessened in size to below the normal, and the muscles of the thighs and arms became atrophied. At the time of his death he could not move the hip, knee, or shoulder-joints; he could move the ankle and elbow-joints a little, and the fingers well. There was but slight difference between the two sides. The flexors of the hip and elbow-joints were contracted. There was no affection of mind, or of cranial nerves, or of the sphincters. He died from a low form of pneumonia. After death the muscles showed in various degree the changes, naked eye and microscopic, characteristic of the "pseudo-hypertrophic muscular paralysis" of Duchenne de Boulogne. The gastrocnemii looked like lumps of fat, and, under the microscope, consisted of fat-cells, among which still ran some muscular fibres, accompanied by a good deal of connective tissue Many of the fibres were healthy in appearance and size; many were narrower than normal, still preserving, however, their transverse striæ, even when reduced to one-quarter of their normal width. Many fibres were narrower at one place than at another.

Very few fibres, except those greatly reduced in width, presented any granular or fatty degeneration. The deltoid and biceps muscles on each side presented similar changes, but they contained less fat and more fibrous tissue; the brain and medulla oblongata and meninges of cord were healthy; the spinal cord itself presented various changes throughout the cervical, dorsal, and lumbar regions. The most important was disintegration of the gray substance of the anterior, lower, and central portions of each lateral half. In some places this had occurred chiefly around the vessels, but in others it involved extensive areas, especially in the cervical enlargement, the upper part of the lumbar enlargement, and the conus medullaris. About the level of the last dorsal nerves, it had amounted to almost total destruction of the gray matter on each side between the posterior vesicular columns and the intermedio-lateral tract. Other changes were disintegration of nerve-roots, commencing sclerosis of the lateral and posterior columns, destruction of the white commissure in various places, dilatation of vessels, and extravasations. A comparison of the symptoms and of the character of the muscles in this case with those of other cases, left, the authors believed, no doubt of the identity of the disease. The spinal cord changes were much greater than any previously found, the examinations of Charcot and Cohnheim having given negative results, and the changes found by Barth and by Kesteven having been slight.

Dr. Buzzard inquired whether the authors of the paper thought that the circumstance of changes in the spinal cord having been reported absent in most previous cases and present in this, which seemed to be a peculiarly advanced one, threw any doubt upon the correctness of the now generally received opinion that, in cases of muscular atrophy and analogous condition, the central changes preceded and induced those in the muscular system. Dr. Lockhart Clarke thought that the idea of muscular atrophy giving rise to disease of the central nervous system had been disposed of long ago. In the examination of the spinal cords of persons whose legs had been amputated, he had found the nervous matter, especially the cells, changed; but there was nothing in the form of degenerative or necrotic change. The remarks had been confirmed by a writer in the *Archives de Physiologie*. The changes were quite different from those met with in muscular atrophy. Dr. Greenfield said that secondary degeneration of the nervous tissue of the cord was distinctly seen in cases where there had been disease of the brain, with hemiplegia and rigidity of the limbs. There was here degeneration running down the anterior or the posterior column of the cord. This occurred, for instance, in cases of disease of the corpus striatum. Dr. Lockhart Clarke said that the changes here were due to the cerebral disease interfering with the supply of nourishment. In reply to a question from Dr. Sparks, he said that observations had not been made on the temperature of the affected limb. Mr. William Adams believed that in past years a number of cases of the kind, described by Dr. Lockhart Clarke, had been mistaken by orthopædic surgeons, their nature not being understood. The condition was sometimes confounded with infantile paralysis and with spastic contraction.

—

Albuminuria as a Symptom of the Epileptic Paroxysm.

It has lately been shown by Dr. Max Huppert that every well-marked fit of epilepsy is succeeded by the appearance of albumen in the patient's urine. The albumen is not found in the urine which is passed just before or during the paroxysm, but in that voided directly after it, and continues to be present for three or four and sometimes for six or eight hours. The more severe the fit, the more abundant the albuminuria; but cases of mere epileptic vertigo may be quite unattended by this phenomenon, unless the attacks follow one another rapidly. The amount of albumen excreted is never large. There may be sufficient, however, to form the ordinary flocculi with heat and nitric acid, but often there is only a white cloudiness or mere opalescence, especially after mild epileptic fits. The largest quantity of albumen is found in the first urine passed after the fit, and the greatest average amount in those patients who have long suffered from severe attacks. Such urine is also remarkable for its clearness

and its increased quantity, and its specific gravity generally ranges from 1018 to 1020.

Of course great care is required in testing for such small amounts of albumen as epileptic urines contain; but Dr. Huppert shows by comparative experiments with aqueous solutions of albumen of known strength, that the heat and nitric acid test is really a delicate one if properly applied. The best plan is to boil half an ounce of the urine, and then to let it cool a little before adding the acid, so as to avoid the reaction of indican, which might otherwise mislead the experimenter. Six or eight drops of concentrated (not fuming) nitric acid are then added, and the whole is allowed to stand for twenty-four hours, as the albumen reaction does not always take place at once. If a deposit of urates occurs after cooling, it is only necessary to heat the liquid a second time, when the urates dissolve and the albumen remains unaltered. There are two other phenomena by which the severer forms of epilepsy are accompanied; the appearance of hyaline cylinders and of spermatozoa in the urine. The cylinders are found in the first or second urine after the fit, but they do not remain present so long as the albumen does. The spermatozoa also occur in the first urine, after severe attacks, and in about a tenth of the cases exist in such numbers that the conclusion is inevitable that a definite although slight ejaculation of semen is coincident with the fit. It probably is due to a direct nerve-irritation—that is, one which bears the same relation to the central nervous centres as the convulsions do. A true seminal emission is not a phenomenon of epilepsy in Dr. Huppert's experience. It is remarkable that red blood-corpuscles are absent from the urine after epileptic attacks of all kinds, or their number if present is so small that it can be considered of no significance. Even where there were subconjunctival petechiæ, Dr. Huppert could not find an increase of red blood-cells in the urine, even with the most careful microscopical examination. White blood-cells, on the other hand, are almost always present. This absence of red corpuscles points to the arteries as the source of albumen in epilepsy, since Liebermeister, Cohnheim, and Hering have shown that venous congestion, even without rupture of bloodvessels, is always accompanied with an abundance of red corpuscles in the urine as soon as albuminuria commences.

Dr. Huppert (whose paper will be found in the last number of Virchow's *Archiv*) mentions in conclusion the curious fact that while the urine of patients with progressive paralysis of the insane, after epileptiform or apoplectiform attacks, agrees with that of epileptics in containing albumen and hyaline casts, it differs from the latter in containing red blood-corpuscles in some quantity, either isolated from one another, or in groups of six to twelve in each. He does not attempt an explanation of this fact, but contents himself with simply recording it.—*Med. Times and Gaz.*, May 23, 1874.

—

Croup.

Dr. Roger, in a recent lecture at the Children's Hospital, remarked that there are two species of croup: the true and the false. False croup is not so commonly seen in the hospital as true croup, as the former is comparatively milder, and occurs in infants under two years, before which age they are not admitted. Croup, the lecturer said, is much more prevalent now than when he began the study of medicine thirty or forty years ago; he could not, however, give the reason. In the Hôpital Sainte Eugénie, situated in one of the most populous districts of Paris, there are at least 500 cases annually. The mortality from this affection is in the proportion of four out of every five cases; and in the hospital just named, tracheotomy is performed on two hundred or three hundred subjects annually, most of whom die soon after the operation. In the face of such unfavourable results, the question naturally suggests itself, whether the operation is justifiable. To this, M. Roger replied that, even if we cannot save life, we can always afford temporary relief. But tracheotomy, to be successful in croup, must be performed early; that is, before the disease extends to the bronchial tubes, and before the patient is exhausted. The etiology of croup differs in different cases; and M. Roger believes the disease to be of a specific and contagious character, and that, like all contagious or epidemic

affections, it spares neither age nor sex. But why it should principally attack children between the ages of two and four is inexplicable. It is rarely met with after seven, and still more rarely in adult age. When the disease occurs in adults ("angine couenneuse," or diphtheria) the patients die or recover; but the disease does not extend to the larynx. Tracheotomy rarely succeeds in adults affected with croup. M. Roger does not believe that cold has anything to do in the causation of croup, as it is met with in all seasons; but it is an undoubted fact that the disease is considerably influenced by cold, and this would account for the greater mortality in winter than in summer. As to the nature of the disease, there is much difference of opinion, even among medical men in the same hospital. M. Bouchut, one of the physicians of the Hôpital des Enfants, believes that the disease is purely local at first, and that, if not checked by treatment, it soon affects the entire system, and the patient is carried off, not only from suffocation and its consequences, but from poisoning of the blood. For M. Roger, also of the same hospital, the reverse takes place; that is to say, the general system is first affected by the specific poison, the throat-symptoms being simply the local manifestation. M. Roger then went through the differential diagnosis between this and false croup, and the affections with which each may be confounded. In referring to the treatment, he condemned the practice of administering tartar emetic, particularly in the doses prescribed by M. Bouchut, who does not hesitate to give about five grains of the salt to a child two or three years old. We have, he said, in ipecacuanha sufficient material to produce emesis without the prostration caused by tartar emetic. Tracheotomy, which was formerly but very rarely practised, is now an every-day operation; and the cures thus effected are estimated at twenty to twenty-five per cent.—*British Med. Journ.*, May 9, 1874.

—

On Acute Purulent Inflammation of the Mediastinum in Typhoid Fever.

Dr. Frantzel, of Berlin, records a fatal case of this very rare complication of typhoid fever, in the *Berliner Klinische Wochenschrift*, of March 2, 1874. A waiter, aged 52, was admitted into the Charité "in the course of the second or third week of the disease." There were no uncommon symptoms; the cardiac dulness was found normal at the first examination; slight dulness existed at the left posterior pulmonary base. The patient was treated with baths. A few days after admission the stools became more frequent and liquid; on the sixth day the strength was manifestly failing, and liquor ferri sesquichloridi, in doses of five drops every two hours, was prescribed, with red wine. In spite of the continuance of the diarrhœa for the next six days, the condition of the patient was not apparently worse on the thirteenth day of his residence in the hospital; the iron was now stopped. Next day a new set of phenomena began. The patient was found to be worse; the pyrexia was increased; there was complaint of sore throat and pain and tenderness in the neck, and the pharynx presented the signs of catarrh. Slight dulness was found at both posterior lung-bases. On the following evening great dyspnœa set in, compelling the erect posture, and preventing sleep. The appearance of the patient next morning was that of extreme orthopnœa and collapse. The countenance was anxious and cyanosed; the respiratory movements were frequent and superficial, with loud groanings and powerful action of the extraordinary muscles of inspiration. The patient complained of pain in the neck—back and front, and of a severe feeling of constriction in the chest. The jugular fossa in the neck was discovered on examination to have completely disappeared, and to be replaced by a soft, somewhat doughy prominence, which extended upwards as far as the lower border of the larynx, and laterally to the outer head of the sterno-mastoid muscles. No other swelling was appreciable about the neck, but all the muscles were tender to the touch. There was a constant and profuse flow of saliva from the mouth; the palate and pharynx were more hyperæmic and swollen than on the previous day; deglutition was not seriously affected. The larynx was apparently healthy. Marked dulness on percussion existed over the manubrium sterni, decreasing in intensity downwards, but reaching the third rib. There was no marked alteration of the pulmonary

signs beyond general feebleness of the respiratory murmur. Fräntzel's diagnosis was phlegmonous inflammation of the pharynx with suppuration of the connective tissues between the deeper cervical muscles, and extension of the process into the mediastinum. Death speedily followed from suffocation.

The results of the post-mortem examination confirmed the accuracy of the diagnosis. The subcutaneous and intermuscular connective tissue of the front of the neck was found highly œdematous. The swelling was continued into the connective tissue of the anterior and posterior mediastina, and the exudation here was more opaque and in places even distinctly purulent. The trachea in its whole length was firmly compressed from before backwards. The mucous membrane of the pharynx and œsophagus was swollen, hyperæmic, and soaked with semi-purulent fluid. The laryngeal mucous membrane was not œdematous, but on the right side of the epiglottis, on the upper border, was found a shallow, rather elongated ulcer. The other viscera presented the appearances usually found in typhoid fever.

Dr. Fräntzel remarks that this is the first instance on record in which typhoid fever has been complicated with fatal mediastinitis. The inflammation of the connective tissue in this situation was manifestly an extension of the phlegmonous pharyngitis, but it is not so easy to account for the development of the latter disease. The author himself believes that it must be attributed to the prolonged use of the liquor ferri sesquichloridi. Such a result might *à priori* be expected when the frequency of slight ulceration of the mucous membrane of the throat in typhoid fever is considered; and Fräntzel's experience of the drug has verified this opinion. Having had occasion to prescribe liquor ferri sesquichloridi in numerous cases of intestinal hemorrhage in typhoid fever, he observed among these a disproportionately large number of severe affections of the pharynx. As for the treatment of acute purulent mediastinitis—neither bleeding nor even tracheotomy can be expected to be of any use. Long and deep incisions, carried down to the trachea, would seem to Fräntzel to be the only rational measures to be adopted.—*London Medical Record*, July 1, 1874.

—

On the Diagnosis and Etiology of Unilateral Induration and Contraction of the Lung.

Professor H. Nothnagel, in a clinical lecture on this subject (*Volkmann's Sammlung Klinischer Vorträge*, No. 66), mentions some interesting points in connection with physical diagnosis. He confines his remarks entirely to those cases in which the induration and contraction involve the whole of one lung, excluding all partial contractions. The most important elements in the diagnosis of this condition are stated to be derived from the inspection and palpation of the thorax. After describing at some length the well-known deformity of the thorax which is produced by the shrinking of the lung, and insisting upon the fact that there is complete absence of inspiratory expansion on the affected side, he alludes to the situation of the cardiac impulse. The heart is always displaced. When the left lung is affected, the impulse is usually higher and more to the left than natural, although in some cases there is no lateral displacement. When the disease is on the right side, the cardiac impulse is often imperceptible, the organ being covered by the enlarged left lung; if, however, the retraction be very considerable, the impulse may sometimes be discovered in the fourth right intercostal space, close to the sternum.

Another important sign of unilateral shrinking of the *left* lung is the existence of a distinct systolic impulse in the second left intercostal space, from four to eight centimètres (about 1½ inches to 3 inches) from the left border of the sternum. This is associated with a diastolic shock, which is perceptible to the hand in the same situation. These two signs, although by no means constantly met with, exist in a large number of cases, and when they are present, Nothnagel considers them as the most certain evidence of shrinking of the left lung. In explanation of their production, they are stated to be caused by the pulmonary artery; the systolic impulse due to the distension of this vessel during the systole, the diastolic shock to the forcible closure of the pulmonary

sigmoid valves. Similar phenomena may, however, occur in other diseases in which there is increased pressure in the pulmonary artery—*e. g.*, in mitral stenosis and insufficiency; but in such cases the pulsation is much nearer to the left border of the sternum, and not four to eight centimètres from it. In order that both the systolic impulse and diastolic shock should be produced in the situation named—(in the second left intercostal space, four to eight centimètres from the left border of the sternum) the following three conditions are necessary: 1. Displacement of the heart to the left; 2. Increased pressure in the pulmonary artery; 3. An induration of the lung covering the pulmonary artery, or so much retraction of this portion of the lung that the base of the heart is left free; and it is only in induration and contraction of the left lung that the concurrence of these three conditions obtains. In only one case of right-sided disease has Nothnagel observed any similar phenomena.

In speaking of percussion as a means of diagnosis, Nothnagel says that there are two signs which, when present, are certain evidence of contracted lung. These are the displacement of the diaphragm on the affected side upwards, and the dragging over of the mediastinum and the healthy lung towards the diseased side. The auscultatory phenomena and the character of the vocal fremitus present nothing diagnostic, as they vary according to the condition of the contracted lung.

Respecting the etiology of induration and contraction of the whole of one lung, Nothnagel says that much the most frequent cause is pleurisy. The pleurisy is the primary lesion, and it leads to a secondary change in the lung. This change consists mainly in a slow growth of connective tissue (a pulmonary cirrhosis), and it is this growth which leads to the fibroid induration and contraction of the organ. This pulmonary induration is only quite an occasional sequence of pleurisy. Why it should occur in some cases and not in others, it is difficult to explain. Nothnagel thinks that the greater the length of time which elapses before the absorption of the exudation commences to take place, the greater is the liability to this fibroid change. Although pleurisy is the most frequent cause of this condition, it may also result from morbid processes commencing in the lung; but even in such cases the pleura is often simultaneously affected. The morbid conditions of the lung, which may give rise to diffuse induration and contraction, are stated to be—abscess, gangrene, croupous pneumonia, and phthisis.—*London Med. Record*, April 15, 1874.

—

On Rest in the Treatment of Chest-Affections.

Dr. F. Roberts (*Practitioner*, June, 1874) recommends the following methods of treating various diseases of the chest.

Pleurodynia is to be treated by applying two or three strips of plaster firmly round the side over the seat of pain. The emplastrum roborans is a good form of plaster for these cases. In pneumothorax and pleurisy the strapping needs to be very firm and resisting, and therefore the best form is that of plaster covered over with two or three layers of strips of bandage, steeped in a mixture of gum and chalk. Should the pleural sac be much distended, however, the best plan of treatment would be to remove the air from the pleura by means of the aspirator, and then immediately to put on the apparatus. In acute pneumonia a complete state of general rest must be enforced. The physical examination of these cases should be made as seldom, and with as little disturbance to the patient, as possible. The patient should be instructed to limit the number of his respirations, to check his cough, and to speak as little as possible. Strapping does not appear to benefit these cases.

In acute bronchitis the object should be to disturb the patient and the respiratory organs within due limits, and to try and empty the bronchial tubes. Frequent examination is here to be commended; the patient should be directed to take full and deep inspirations from time to time, and coughing is to be encouraged. A half-sitting posture should be adopted, and prolonged sleep is to be forbidden at night as well as in the daytime. The act of coughing is often aided by applying a bandage tolerably firmly round the abdomen, including the lower margin of the thorax.

In cases of broncho-pneumonia, the treatment must be determined by the exact conditions of each case.—*London Med. Record*, July 1, 1874.

—

Communicability of Consumption from Husband to Wife.

Dr. H. Weber read before the Royal Medical and Chirurgical Society (April 28, 1874) cases illustrative of this point. He had tested the question in his practice during more than twenty years, his attention having been first directed to it by some striking cases. He had the history of the results of twenty-nine marriages between women with more or less marked signs of consumption, who married healthy men, and of fifty-one marriages of tainted men who married healthy women. While only one of the husbands of the twenty-nine diseased wives became consumptive, eighteen of the fifty-one healthy women married to diseased husbands died from consumption. The eighteen women were the wives of nine husbands, one of whom lost four wives, one three, four two, and three one each. Dr. H. Weber gave an abstract of the histories of these nine husbands and eighteen wives, and then discussed the following points: 1. The communicability of consumption from husband to wife he did not regard as established, but as rendered probable; he could scarcely consider the results of his experience as merely accidental, although the risk of communication was probably not quite so great as it would appear from his cases. 2. The means of communication between husband and wife seemed to exist only rarely in the inhalation of the breath, though he did not regard this as impossible, but more frequently in the seminal fluid, either by direct absorption of the latter, or indirectly through the fœtus. 3. The suggestion made to him, that possibly the infecting husbands were tainted with syphilis, was not supported by the examination of the facts, either those relating to the husbands or those relating to the wives, including the *post-mortem* appearances. 4. The rapid course of the disease in the wives manifested more or less the character of galloping consumption, while the affections of the originally diseased husbands were in all cases chronic and quiescent, but well-marked, and leading in all cases but one to a fatal termination, though long after the deaths of the wives. —*Brit. Med. Journ.*, May 23, 1874.

—

On the Treatment of Phthisis by the Phosphate of Lime and the Juice of Raw Meat.

Dr. Henry Blane, of Paris, in a short article in the *Lancet* (June 13, 1874), advocates this mode of treatment of phthisis:—

The treatment of phthisis by raw meat and alcohol was prominently brought to notice some years ago by Professor Fuster, of Montpelier. At first the results published were so favourable that it appeared that consumption had at last been conquered; but, unfortunately, the advantages gained by this treatment were not lasting—not that the raw meat was at fault, but merely because the patient could not be induced, after a certain time, to swallow the raw meat, or the stomach to tolerate it. The fault rests entirely with the mode of administration, and the principles on which the treatment was based still remain good, and by improving the form under which this valuable remedy can be administered we obtain from it all the advantages possible without any of its inconveniences.

Dr. Blane administered the raw meat in the following manner: A pound to a pound and a half of fresh beef, deprived of fat, bones, etc., is placed over a quick fire for a few minutes, in order to whiten and harden the external surface only; the piece of meat is then cut into two or three pieces corresponding to the size of the meat-press, and all the juice is extracted by the pressure of the powerful screw. The superficial coction is necessary to overcome the elasticity of the meat, which renders the extraction of the juice a very difficult matter unless more powerful machines be used than the simple one at present required. A pound and a half of good fresh meat gives a teacupful of juice. The juice should be prepared daily. This juice, having all the physical pro-

perties of raw meat, is easily digested, is well tolerated, and, served in the following manner, is always very grateful to the patient. The juice should be mixed with equal parts of tepid broth, made of bones and flavoured with salt and pepper, and to which tapioca, vermicelli, etc., can be added. Care, however, should be taken that the broth is never more than *tepid*, otherwise coagulation takes place, and the desired effect is not obtained.

The treatment of the consumptive patient by this method is the following: Early morning—Warm milk (not boiled), with bread and butter, and, if the appetite be good, some fat bacon and eggs. At eleven or twelve o'clock, breakfast, before which a drachm of the syrup of triple phosphate should be taken; during the meal itself, a dose of the muriatic phosphate of lime, and half the daily allowance of the raw meat juice in some broth; the meat should consist, according to appetite and digestive powers, of fish or poultry, or white meats, fresh vegetables, and a few glasses of good alcoholic wine. Dinner at six o'clock on the same principles; broth, with the remainder of the raw meat juice, and, instead of the triple phosphate, a dessertspoonful of cod-liver oil can be taken with advantage after the meal, if the liver be not enlarged and fatty, and the digestion good. The muriatic solution, or wine of phosphate of lime, should also be taken during the dinner. At night, before retiring to rest, a cupful of warm fresh milk, diluted one-third with Vichy water.

No medicines whatsoever, beyond those mentioned, should be administered, unless some special indications or some urgent symptoms claim their use. Anodynes, narcotics, cough mixtures, lozenges, blisters, inhalations, etc., are practically of no good, and but too often, by lessening the appetite or by irritating the patient, they increase the debility and hasten the fatal end. All hygienic rules—out-of-door exercise, ablution of the skin, etc.—should at the same time be carefully attended to. Under the influence of this treatment, Dr. Blane says, the appetite rapidly returns, the cough becomes less troublesome, the expectoration lessens, the night-sweats and all unfavourable symptoms decline and disappear, the patient gains flesh and strength, and the confirmed and helpless invalid, with proper care and prudence, can enjoy life once more.

—

On the Influence of Anæmia on the Nutrition of the Muscular Fibres of the Heart.

The fatty degeneration of the internal membrane of the vessels, the degeneration of the muscular fibres of the heart, and the arrest of the development of the whole vascular system, are the three principal organic changes which have been recognized in chlorosis. Already partly pointed out in the collected edition of Virchow's works (*Gesämmtliche Abhandlungen*, p. 494), these facts are more fully developed in a special memoir on chlorosis by the same author. Since that time, many observers have also recognized the changes of the cardiac muscular fibres in a great number of forms of anæmia; for instance, in lying-in women who had died in consequence of profuse hemorrhage, and in persons who had died from marasmus after typhoid fever, or from affections of the digestive tube which had brought on serious troubles of absorption or nutrition.

Tschudnowsky, a Russian physiologist, has recently published a memoir, in which he has directly studied the influence of bleeding on the nutrition of the heart; and in which he entirely confirms the results obtained by clinical experience.

Dr. Perl, of Berlin (Virchow's *Archiv*, vol. lviii.), while taking note of these researches, wished likewise to assure himself of the effects of anæmia on the heart, and instituted a series of experiments on dogs, which were superintended by Virchow. He selected veins of a certain size, which were carefully isolated, then tied on the cardiac side. A thread was slipped under the vessel on the peripheral side, then the vein was opened; the desired quantity of blood was allowed to flow, and the operation was finished by tying the peripheric end. Arterial blood was not abstracted, except when the veins, having already been opened several times, had become the seat of thromboses, and consequently more or less impermeable.

Two different methods were adopted. In a first series of experiments, moderate but rather frequent blood-lettings were performed; that is to say, they were repeated every three or four days, but the quantity of blood never exceeded the hundredth part of the total weight of the animal. In a second series, the blood-lettings were few and far between, but copious. Every five or seven days a quantity of blood corresponding to three-hundredths of the entire weight of the animal was taken away.

In the dogs of the first series of experiments, the effects of the blood-letting were very slightly apparent, and recovery was rapid; the appetite was good, the reparation of the blood lost went on smoothly, though the number of bleedings spread over from thirty-six to sixty-nine days had amounted to from ten to seventeen. The animals were killed, and the necropsy revealed a perfectly normal condition of the muscular fibre of the heart; the striation remained perfect; there were no fatty elements except in the neighbourhood of the nuclei, which is an ordinary phenomenon with dogs.

On the other hand, the animals which had been submitted to unfrequent, though copious, blood-lettings (from five to eleven in an interval of from four to twelve weeks) were in a very different condition. They speedily fell into a state of marasmus, rapidly became emaciated, lost their appetite, and their lower extremities became œdematized; all, with one exception, succumbed spontaneously. One dog only did not present any anomalous appearances at the necropsy; in all the others the heart was flaccid, and of a pale and slightly yellowish tint. Fatty degeneration of the muscular fibres could be found in all parts of the organ; sometimes the striation was only interrupted by fatty corpuscles; sometimes it was no longer even perceptible, and only refracting granules, which resisted the action of acids and alkalies, were to be perceived. The degeneration was not universally distributed in the same degree; it was more decided in the papillary muscles of the left side of the heart, next in the corresponding fasciculi of the right side, next in order came the walls of the left side, and finally those of the right side. The process never showed itself in manifestations which were visible to the naked eye; and with the microscope, by the side of the degenerated fibres, others could be discerned which had remained intact. As the dogs were not suffering from any other disease, and as no clearly defined febrile movement could be discovered in them, from a clinical point of view, anæmia only could be designated as the cause of the lesions.

From a clinical point of view, these facts are of great importance, since they explain the more or less serious cardiac symptoms which show themselves in inveterate chlorosis. Chlorosis will be removed from the domain of purely humoral pathology to re-enter, up to a certain point, that of organic pathology.—*London Med. Record*, May 13, 1874.

—

Aneurism of the Abdominal Aorta successfully treated by the Administration of Gallic Acid and Subsulphate of Iron.

Dr. S. Fleet Speir reports (*Med. and Surgical Reporter*, March 28, 1874) the following two cases:—

Case 1.—Alex. C——, aged 34, admitted to Brooklyn City Hospital Aug. 27, 1870.

On the 20th of May there was heard, for the first time, a murmur over the abdominal aorta; its maximum of intensity was just above and a little to the left of the umbilicus. A tumour was perceptible to the touch, firm, and limited pressure upon it was painful. The tumour pulsated, and its expansion was synchronous with the cardiac pulsation, and a distinct bruit could be heard over it. The diagnosis of abdominal aneurism was made, and was confirmed by consultation. The patient was at this time under the care of Dr. H. S. Smith, on the medical side of the hospital, and his treatment consisted of tonics and occasional cathartics. On the 6th of June he was transferred to the surgical wards, and came under my care. A consultation was held, and surgical interference was thought of for the relief of his distress. His debilitated con-

dition, however, induced me to abandon that idea, and I put him upon gallic acid, in half drachm doses, three times a day, before meals, and alternated with five minims of the solution of liq. ferri subsulphat. After this treatment there was a marked change in the character of the tumour. It became much more firm to the touch, and the impression was received of a solid tumour occupying the anterior surface of the aorta, and below it the passage of blood was but little interrupted. The tumour seemed to be near the cœliac axis. On the 11th of June he died suddenly, from the rupture of the sac of the aneurism. On post-mortem examination the aneurism was found as above described. A portion of its wall was very thin, and had given way near where it joined with the main trunk of the artery, and hemorrhage into the abdominal cavity caused his death. The whole interior of the sac of the aneurism was filled by firm layers of coagulated fibrine, which gave evidence of having been recently deposited. The fact that this fibrine had been deposited so immediately after the use of the gallic acid and iron, and the readiness with which the effused blood coagulated, induced me to believe that these remedies had been, in part, at least, the cause of the rapid coagulation of fibrine within the sac, and I determined to give it another trial on the first opportunity.

Case 2.—Chas. A——, aged 36, born in Denmark, a sailor by occupation, weight 202½ pounds, entered the Brooklyn City Hospital May 13, 1871. In January of the same year he had been treated for lumbago, with relief; he returns with same complaint. In 1865 he had gonorrhœa, but has had no other venereal complaint; his habits have been good; is not a hard drinker. In February the pains for which he had been treated in January returned, in the small of the back. The pain increased in severity, notwithstanding local and constitutional treatment. In the latter part of May the pain in the back was so great that he was unable to leave his bed. About the 1st of June a pulsating tumour was discovered, for the first time, just to the left of the umbilicus. This had all the symptoms of aneurism of the abdominal aorta, and was accompanied by diminution of the current of blood in the left femoral artery. By the 1st of July the patient was helpless, and lost about forty pounds, and got relief from the intense pain only after hypodermic injections of morphia. He was now put upon liq. ferri subsulphatis, iv minims, three times a day, alternated with gallic acid, ʒss, and was kept in bed. In August he was greatly improved; the tumour was smaller and more firm, and gave less pain. In the latter part of August his improvement was very marked; he could walk about the wards; the morphia was discontinued, and he began to regain his lost flesh. At this time he weighed 195 pounds, and was able to do light work without fatigue. The tumour was small, very firm, and gave no pain on pressure. No difference in the current of blood in the femoral arteries could now be detected. Oct. 10th he was "discharged cured."

Tumours of the Spleen in Primary Syphilis.

Dr. A. Weil, of Heidelberg, in a short article on this subject in the *Centralblatt für die Medicinischen Wissenschaften*, March 7, remarks that the syphilitic affections of the spleen are numerous. Besides gummata and amyloid degeneration, Virchow described an indurated and a soft hyperplastic tumour, the latter depending chiefly on a multiplication of cell-elements, and indicating a slighter degree of irritation. Some of these diseases may be diagnosed during life with more or less accuracy. Gee, Eisenchitz, and others, have attached especial importance to the presence of splenic tumour as an indication of hereditary syphilis. Dr. Weil says that, contrary to all previous statements, so far as he has been able to find any allusion to the subject, he has ascertained, by palpation and percussion, the presence of enlargement of the spleen during the stage of primary syphilitic induration in three cases under his notice in the hospital at Heidelberg. Two of the patients came into hospital soon after infection, three or four weeks before the first appearance of a syphilitic exanthem; the third had already had a macular eruption for a month before admission. The splenic tumour was well marked in all the patients at the time of their ad-

mission. The breadth of the splenic dulness in the axilla was from 4 to 4¾ inches; in front the dulness extended to the ribs, where in one case the spleen could be distinctly felt. Under antisyphilitic treatment, the splenic enlargement completely disappeared within periods varying from five to ten weeks. As there was no other apparent cause for the splenic tumour, Dr. Weil attributes it to syphilis. He has not found it in cases of blennorrhœa, or of local contagious ulcer; and it is absent in many cases of constitutional syphilis. He believes that the best explanation of the origin of these splenic tumours is, that they arise from syphilitic infection of the blood, and are analogous in this respect to the splenic enlargements arising from the circulation of irritant matters in the blood in typhus and intermittent fevers and in the acute exanthemata. According to this theory, the anatomical substratum of the tumour will be hyperæmia and multiplication of the cell-elements of the splenic pulp; this, however, remains to be proved by pathological examination.—*Brit. Med. Journ.*, April 25, 1874.

—

Relation of Renal Apoplexy with Cerebral Hemorrhage.

Dr. Auguste Ollivier remarks (*Archives Gén. de Med.*, Fev. 1874) that the influence of chronic affection of the kidney on the production of cerebral hemorrhage is well known, but in the present essay he proposes to consider the converse fact, namely, the influence of cerebral hemorrhage on the production of certain renal lesions. He proceeds to give a series of cases that have fallen under his observation, amongst which are the following: 1. A man, aged 74, was attacked with apoplexy, with right hemiplegia of the limbs and face. In twenty minutes after the attack the urine was found to have become albuminous; death took place on the fourth day. On post-mortem examination effusion of blood was found to have occurred under the meninges, and a clot had formed in the left optic thalamus and corpus striatum, which had burst into the corresponding ventricle, and had made its way into the middle ventricle and the opposite lateral ventricle. The cerebral peduncles, cerebellum, pons, and medulla oblongata were healthy. Both kindeys, but especially the right, were found to be congested. 2. An attack of apoplexy in a man aged 68, with hemiplegia of motion and sensation on the right side; ten minutes after, coma. The urine was normal up to the time of the appearance of the coma, but then began to contain albumen. Death occurred in the course of nine hours. The autopsy showed a large hemorrhage into the white substance of the left cerebral hemisphere, which had burst into the ventricles, and even entered the upper part of the aquæduct of Sylvius; both kidneys were congested, the right highly so, and with an ecchymotic spot upon it. M. Ollivier reports several other similar cases. He then proceeds to give the details of numerous experiments he has recently performed on rabbits, showing, in accordance with the statements of Bernard, Brown-Séquard, and others, that puncture of the floor of the fourth ventricle is almost constantly followed by the appearance of albumen in the urine. The cause of this is not, however, quite clear; some, with Schiff, considering it to be due to paralysis of the vaso-motor nerves; others, with Brown-Séquard, to be due to spasm of the veins, or of both arteries and veins, causing engorgement and rupture of the capillaries.

M. Ollivier, in conclusion, points out that albuminuria of cerebral origin is of more frequent occurrence than is generally admitted, but that our present knowledge does not enable us, from the existence of albuminuria in cases of cerebral hemorrhages, to localize exactly the seat of lesion. At the same time, where the symptoms of lesion of the medulla oblongata are deficient in an apoplectic patient, it may be said that the presence of albumen in the urine indicates either a hemorrhage situated at the base of the brain, or an extensive hemorrhage elsewhere exerting compression on the base. In all instances it must be regarded as a very serious symptom.—*Practitioner*, April, 1874.

Remarks on Eighty Cases of Tapeworm.

Dr. T. Spencer Cobbold, Lecturer on Parasitic Diseases at the Middlesex Hospital Medical College, contributes (*Lancet*, June 6, 1874) some remarks based on an analysis of eighty cases of tapeworm.

Amongst the remedies employed, he says, I find male fern to have been the favourite. My notes on this point are not at all complete; yet I ascertained that this popular drug had certainly been administered in 28 instances, turpentine in 13 instances, and kousso in 11 cases; the other less commonly employed remedial agents being pumpkin-seeds, kamala, tar-water, calomel, aloes, sulphate of copper, santonine, etc. In particular and individual cases four or five of these agents had been employed in succession. As regards my own treatment of these self-same cases I find that in the mere matter of drugs I have resorted to male fern in 52 cases, and in 39 of these it was the only remedy employed. In the 13 remaining cases either areca-nut, kamala, or kousso was resorted to, frequently in combination with the male fern in the simple form of powder. Only in such cases as those in which other parasites were either known or suspected to be present have I enjoined the use of santonine and certain other drugs which I deem utterly unsuitable as tæniafuges.

In regard to the special results obtained by myself in connection with these 80 really very miscellaneous "cases of tapeworm," I have, in the first place, to dismiss the 24 delusive ones, and to them I must also add 9 others in which either a simple opinion or merely preliminary advice was offered. This leaves 48 cases only in which I had any chance of testing the action of appropriate tapeworm remedies. In exactly 24 out of the 48 I ascertained that the cure was complete, and, except in some six or eight of the remaining patients who refused to persevere in the treatment, I believe that the same good result followed. Only in a comparatively small proportion of the cases have I been enabled to make the necessary, complete, and final stool inspections, by the results of which alone one is enabled to pronounce a cure or otherwise on the dismissal or departure of the patient. However, I now usually insist upon this essential detail of management being properly carried out. Thus, in 17 out of the 24 cures above mentioned, the head of the worm was actually obtained, and in the 7 other cases it was ascertained that the parasite never returned after treatment. The management of genuine cases of tapeworm is incomplete without attempts on the part of the practitioner to secure the head by personal investigation of the matters discharged. It is not well to leave this task to others. On four separate occasions I have known the patient to remove the head of the worm with the rest of the parasite from the stools, but, with one exception, these persons were unaware of the character and importance of their individual finds. Guided by my own more recent experiences, I think we ought always to reckon upon curing straight off 9 out of every 10 cases that are presented to us for treatment—provided, of course, we have the proper facilities offered to us. However, it is only in a proportion of cases that the necessary examinations can be efficiently made. Thus, last year, I enjoyed this opportunity of searching for the head of the worm in six cases only, but in every one of these cases I removed the head of the tapeworm from the matters discharged. In every case the head was found detached from the body of the worm, and in one or two instances it was completely isolated from the neck.

—

Successful Treatment of Pityriasis Rubra.

Dr. Tilbury Fox, in an article in the *Lancet*, Feb. 28, 1874, states that pityriasis rubra (general dermatitis) is said by many dermatologists to be incurable. If treated upon correct principles, he finds it to be very amenable to remedies in many cases. The following is a case in point:—

W. B.———, aged fifty-two, came to University College Hospital on the 28th September, 1872, stating that he had been under a club doctor for two months with his disease, and was rapidly getting worse. He said that he had always enjoyed good health, save that he had had the gout on and off, badly,

for fourteen years. He admitted "taking a little," by which it appears he meant five or six glasses of ale or gin and water a day. Has passed "stones" per urethram, the size of the smallest pea. His urine is habitually red, thick, and scanty.

The skin affection began two months ago—namely, in July, 1872—by little red scaly spots on the arms and legs. Other spots then appeared quickly over the body. These speedily enlarged, and invaded the whole of the body within ten days or so. The body was, in fact, reddened, and threw off scales and large flakes. The head was red and scurfy. The face and the palms of the hands were apparently the only parts not affected.

There can be no doubt that the disease was typical pityriasis rubra, though it was termed by the doctor psoriasis. The urine became scanty at the same time.

Sept. 28th. When I first saw the patient he had the general aspect of a man with pityriasis rubra. The whole skin was very hyperæmic, but there was no thickening of the derma, as is observed always in well-marked and certainly general psoriasis. The blood could be squeezed out of the skin, which had a dry, yellowish look, and felt harsh; but the surface was covered over with lamellar scales, exactly as one sees in pityriasis rubra; they were not heaped up, not smallish, imbricated, and of silvery aspect as in psoriasis; they were freely shed—as much as two handfuls in quantity, during the night, for instance. But there was more than this. The legs were enormously swollen and tense; they were markedly œdematous, and this, together with the extreme pallor or semi-sallow aspect and puffiness of the face, pain in the back, and scanty supply of urine, gave one the idea that the man was the subject of Bright's disease; but on examining the urine, it was found to be tolerably healthy.

Remarks.—This case was clearly one of pityriasis rubra—viz., hyperæmia of the skin and exfoliation of the cuticle. It began like, and ran the usual course of, pityriasis rubra, involving the whole surface from head to foot in a very short time, except that the disease got well before the lapse of a very long time. And it is especially in regard to the success of the therapeutics adopted that I wish to call attention. In the first place, I have to observe that the conditions were favourable to successful treatment—though the disease is said by some to be incurable, because the case came under observation at an early date, before the hyperæmic state of skin had existed any length of time, so as to have given rise to secondary alteration, such as infiltration into the textures, and the like.

The case seemed to me to be exactly one in which the free use of diuretics was called for. It is an established rule in renal therapeutics to stimulate the skin to increased action in cases where the kidneys are congested, or in other conditions in which it is desirable that they should be given rest from work. In the case of a hyperæmic state of skin, where this hyperæmia is not removable by local remedies, and where it is extensive, it is likewise desirable to stimulate the kidneys to increased activity, to relieve the skin of its work—to give it rest. In the case under notice the man was actually making much less than an average amount of urine; hence conjoined to his hyperæmic skin was a general puffiness or semi-œdema of his skin, especially his legs, as before stated. The patient began to take a diuretic mixture, composed of spirit of juniper, one drachm; acetate of potash, half a drachm; bicarbonate of potash, half a drachm; and infusion of calumba, one ounce, for each dose, three times a day. He continued thus, rubbing in simply oil to his skin, from Sept. 28th to Nov. 30th, 1872, taking also four vapour baths towards the end of this interval, as the skin began to recover its normal state. His kidneys acted well, the swellings of his legs subsided, and his skin gradually became less red and scaly. On Dec. 7th he began to take tincture of the perchloride of iron in fifteen minim doses three times a day, and on Jan. 25th, 1873, was pronounced well.

This is now the fifth case of cure of pityriasis rubra which I have had under this plan of getting the kidneys to do extra work so as to relieve the skin, and give it rest, whilst it is soothed by oily inunction, this being followed up by the exhibition internally of perchloride of iron, which acts as an astringent to the weakened cutaneous vessels.

On a Method of treating Tenia Tonsurans.

Dr. Edgar A. Browne, writing to *The Practitioner* of May, recommends the following method of treatment as requiring no attention on the part of a nurse or parent, and needing only to be renewed at intervals of three or four days. A margin of healthy hair is to be cut quite short or shaved round the patch. A brisk rubbing with the oleum picis rectificati, or some similar hydrocarbon, is the next stage, and the reddened and saturated patch is to be thickly dusted with a powder composed of tannin, iodine, and gum arabic. This is to be moistened with a few drops of the oil, and gently but firmly pressed into the skin with the end of a small cork. The process is to be repeated till the whole patch is covered with a layer of paste about an inch thick, which is allowed to dry. The firm hard scab thus formed may be left undisturbed for three or four days, when it should be moistened and scraped off, and a fresh application made.—*London Med. Record*, July 1, 1874.

Surgery.

The Action of Modern Bullets on the Animal Body.

Dr. Ernst Kuester, of the Augusta Hospital, has published in the last number of the *Berliner Klinische Wochenschrift* an interesting paper on this subject. In a paper read last year before the German Surgical Congress, Professor W. Busch, of Bonn, called attention to the fact that the Chassepot bullet, when shot from a short distance into the human body, made a simple aperture of entrance, but that its aperture of exit was larger than a fist, and that there was very extensive fissuring and crushing of the bones. The same phenomenon had been described by Huy and Sarrazin in 1867; but they did not attempt to explain it. Dr. Busch supposed that the ball became melted and broken up by forcible contact with a hard substance, and acted like a mass of shot on the parts lying behind. Dr. Küster, at the time when Dr. Busch's paper was read, had made a similar observation as to the effect of the bullets, but could not adopt Dr. Busch's explanation. He has since made a number of experiments, which, with the courteous sanction of the ministry of war, who placed at his disposal arms, ammunition, and men, and with the assistance of Major Schenck, were carried out at the Royal Military School in Spandau.

In making the experiments, a large target was placed behind the animals, so as to enable the condition of the bullets to be observed after their passage through the body. The distances were 5, 20, 100, and 800 paces. The arms used were a sporting rifle (muzzle-loader with pointed bullet) the needle-gun, Chassepot, Mauser, and Henry-Martini rifles; the animals used for experiments were horses and wethers. The latter were first killed by a volley from all the weapons; then shots were discharged at the dead body, and after eight days a further series of experiments was made on the carcass, which was at that time undergoing decomposition. The following were the general results of the investigation:—

1. There is no essential difference in the action of bullets on the living and on the dead body. With reference to this subject, Dr. Küster calls attention to the fact, that in consequence of the greater toughness and resistance of the skin of animals, the aperture of exit is not so large as in the human body. In one case, the skin was so tough, that the point only of the ball penetrated the skin of the back, and its force was then diminished. On dilating the opening and introducing the finger into the wound, there was found to be just as extensive destruction of the soft parts and bones, as in the human body. It was only in those parts where the skin was thinner and lay close to the bone, as in

various parts of the head of the bone, that it was sometimes torn to a greater extent, but never so much as in man. The extent of injury of bones, however, was not less than in the human subject.

2. The extent of the destruction is in inverse ratio to the distance, and in direct relation with the initial velocity of the bullet. At 800 paces, although the characteristic peculiarities of the wounds were still present, they were greatly reduced in intensity. The smallest wounds were produced by the sporting rifle (*Fagdbüchse*); the bullets, although put out of shape, remained entire in the body, even when discharged at short distances. Then followed the needle-gun, the Chassepot, and the Mauser rifle, which produced frightful destruction of the bones and soft parts.

3. The destruction of the tissues is produced by the lead becoming heated by collision against a solid substance, and consequently broken up, but without being melted. The bullet is mechanically divided: it leaves the finest particles of lead in the recesses of the wound, while the fragments of various sizes pass out along with pieces of shattered bone. On this point, Dr. Küster differs from Professor Busch, who supposes a melting of the lead to take place. Busch's view appears to derive confirmation from the fact, that when a lead-bullet is discharged against an iron target, the lead is spread out in the form of a star; and this, it is argued, shows that it becomes melted. But Schädel, of Heidelberg, hung a small bag of powder before the target; the bag was repeatedly torn by the splinters of the bullet, but without producing an explosion, which must have taken place if the lead had been melted. There must also be a great difference, according to whether the bullet, travelling with full force, is completely arrested, or meets with an obstacle which it can overcome.

At the meeting of German naturalists in Wiesbaden, Professor Busch related some experiments to show that lead loses its cohesion in proportion as it is heated. If two bullets, one cold and the other heated, be allowed to fall on a stone from a height of six feet, no impression will be made on the first, while the second will be distinctly flattened. That a heating of the ball does take place, is an evident result of the physical law, that whenever it meets with resistance a part of the force is changed into heat; and further, when a bullet remains sticking to the target, it is always warm. Again, when a bullet is discharged from a short distance into a heap of moist sand, the edges and the further end of the channel made by the ball are always warm. By these facts, the manner in which the injury is produced in the animal body is easily explained. The bullet shatters the first bony lamellæ with which it comes into contact, becomes heated, and is consequently broken into several fragments against the projecting portions and angles of the bone. In correspondence with this destruction of the bullet, the wounds made from short distances by the Chassepot and Mauser, which have the greatest initial velocity, were frightful. Most of the bullets passed through the animals' bodies reduced by one-half or more, and greatly altered, and made on the target an irregular impression surrounded by a crown of small pieces of lead. Along with these were found fragments of bone, muscle, hair, etc. Dr. Küster does not remember having once seen a simple bullet-opening in the target.

The next point was, to observe whether hardened balls have the same effect. This was *à priori* not improbable, as Pirogoff had noticed the remarkably extensive splintering produced by the copper bullets of the Tscherkesses. Dr. Küster, however, found that—

4. The injuries described are produced only by bullets of soft lead, not by those made of hard lead. Bullets of hard lead are used with one only of the modern weapons—the English Henry-Martini rifle. The hardness is produced by amalgamation of the lead with tin in the proportion of 12 to 1. The initial velocity of this rifle is nearly as great as that of the Mauser, and yet the wound produced by it is very much smaller. While with the latter the aperture of entrance into the bone was irregular and often very extensively splintered, and while the amount of crushing increased in extent in the track of the ball, the Henry-Martini bullet always made a simple and more or less circular opening. If the edge of a rib were hit, the loss of bone formed the segment of a circle corresponding to the circumference of the ball. The aperture of exit was also

generally roundish, though larger; there was either no splintering; or it was limited to the immediate circumference of the aperture. The hole in the target was without exception simple; and the ball, when found in the target, was not at all, or only slightly, misshapen. Dr. Küster has never found splinters of lead in the track of the wounds made by these bullets. In one case only did he find a bullet of this kind much misshapen; it had been discharged at a distance of 100 paces, and remained sticking in a bone.

Dr. Küster states, as a fact of importance, that at a distance of a hundred paces the Henry-Martini bullets, with one exception, passed through the greatest diameter of the body of a horse, while the Mauser bullets frequently remained in it. This is explained by the greater resistance which the latter have to overcome in consequence of the greater amount of misshapement which they undergo; it also shows that the passage of a ball right through the body generally indicates much less danger than when it remains in it.

These results, Dr. Küster says, are capable of practical application in several directions. In the first place, they are a gain to forensic medicine. The statement made in text-books, that gunshot wounds are more extensive in the living body than in the dead, and that this affords a means of distinguishing whether the injury has been inflicted during life or after death, can no longer be tenable. No distinction exists in this respect, at least with the arms with which the experiments were made. On the other hand, a careful examination of the wound, especially when it passes through bone, may very well show whether the ball was of soft or of hard lead, and allow some estimate to be made as to whether it came from a distance or was discharged near the part. A still greater gain, however, is to be derived from the investigations by military surgery. The opinions previously entertained as to the action of shot have been shaken by the introduction of the modern weapons, and require reform. In future, in judging of the severity of an injury, it will be important to ascertain at what distance and from what weapon the shot was discharged, and whether it was of hard or of soft lead. The penetration of the bones of an extremity by a Chassepot or a Mauser bullet at short distances will in nearly all cases demand immediate amputation.

Dr. Küster next refers to the bearings of the question on the interests of humanity. The use of explosive bullets of small calibre is forbidden by international agreement; but, if it be shown that bullets of soft lead, at least at short distances, act just like explosive bullets, and that a close combat with such bullets can be nothing but a horrible butchery, the members of the Geneva Convention must use every effort to obtain an international verdict against soft lead bullets.

In some of the actions in the late war, when the combatants fought at short distances, the surgeons were struck with the frequency and severity of the injuries of bones, and the size of the apertures of exit. At that time, the reason of this was not understood, and it was supposed that explosive bullets were used. The researches of Dr. Busch and Dr. Küster have explained the matter; and Dr. Küster says that he owes it to a brave opponent, to state with satisfaction that the French stand thoroughly acquitted of the charge of having committed an act of unworthy and interdicted barbarity.—*Brit. Med. Journ.*, May 9, 1874.

—

On the Advantage of opening the Capsule before making the Corneal Section in the Operation for Senile Cataract.

One step of the operation for extraction of senile cataract—the theoretically simple process of opening the capsule—Mr. Spencer Watson finds (*Medical Times and Gaz.*, May 9, 1874), presents some difficulty and not a little danger. However fully dilated the pupil may have been before making the corneal section, no sooner is this step completed than the aqueous, if it has not already escaped, rushes out, and the pupil contracts, the iris coming of necessity in contact with the cornea. Supposing the operation to be Graefe's, the next step is to excise a piece of iris, and then comes the laceration of the capsule.

The removal of a piece of iris facilitates this step, but at the same time makes it more dangerous. It opens the space for the admission of the cystitome, and allows it to have a wide range of action without coming in contact with the iris; but it also much increases the risk of dislocating the lens and causing prolapse of the vitreous. If the capsule happen to be tough, and the suspensory ligament weak and friable, this accident is very likely to happen; and especially if the fixing forceps is being used, and the patient is under an anæsthetic. If, however, the operation is the old flap or any other operation not necessitating the removal of a piece of iris, the difficulty of lacerating the capsule freely without bringing the cystitome into contact with the iris is almost insurmountable. But this is not the only danger. The point of the cystitome must, in order to make a free opening of the capsule, pass behind the iris, and it is then of course out of sight, so that its movements can only be guessed at by observing the length and motion of the uncovered portion. Hence injurious friction of the uveal surface may be set up, or, on the other hand, an insufficient opening may be made in the capsule, either of which errors may lead to subsequent disasters. The use of Wecker's cystitome forceps only renders the danger still greater.

Contrasted with these methods let us consider the plan of opening the capsule by means of a curved cataract-needle, introduced through the cornea before the corneal section has been made. This operation was advocated by M. Correnti, of Florence, in 1872. He thinks the chief advantage is in the infiltration of the aqueous humour between the capsule and the lens, and that this facilitates the subsequent escape of the cataract; and he was very well satisfied with the result in several operations by Graefe's plan, in which he had tried this preliminary laceration of the capsule (see *Annales d'Oculistique* for September–October, 1872).

Having operated in this way in seven cases with satisfactory results, Mr. W. has come to the conclusion that it offers the following advantages in practice:—

1. The pupil, if previously dilated by atropia, remains dilated, and the iris, therefore, is out of the way of the needle.

2. The pupillary area is clearly seen, and the movements of the needle, therefore, can be guided into the precise positions required.

3. The nature of the cataract is more clearly ascertained than can be done by means of focal illumination or ophthalmoscopic observation. The density and thickness of the cortex, and its amount relative to the bulk of the nucleus, can be more satisfactorily made out.

4. There is no danger of dislocating the lens or of rupturing the suspensory ligament and so leading to almost certain loss of vitreous.

5. The information derived from the appearance of the cataract, and especially of its cortex, after lacerating the capsule, enables the operator to modify the subsequent steps in accordance with the varying bulk or density of the cataract or its capsule. If, for example, it is found that the nucleus is very large and dense, a large corneal section will have to be made, and an iridectomy also if there is any difficulty about the escape of the lens with moderate pressure. If, on the other hand, the cataract is composed of a bulky cortex with a very small nucleus, a small corneal incision will suffice.

If the capsule be tough and thickened by inflammatory exudation, it may be desirable to extract the cataract within its capsule, and this can be done by modifications of the ordinary methods. With a cataract of the Morgagnian variety, having a fluid milky cortex and small nucleus, it will be better to extract it in its capsule; and this condition could be easily ascertained by the introduction of the needle before making the corneal section. It is not so easy to make the diagnosis of a Morgagnian cataract by the ordinary methods.

The method of operating is as follows: If the patient be not under the influence of an anæsthetic it will be possible, by fixing the eye in the manner employed in ordinary discission operations, to dispense with the use of the speculum and fixing forceps during the first step. It is an advantage to do without the fixing forceps if possible, as there is then less likelihood of an escape of aqueous humour on withdrawing the needle. There is nevertheless an advantage attending the use of the fixing forceps—viz., that the needle can

be used with more freedom and precision. The pupil should have been previously fully dilated by atropia. The needle used should be slightly curved near the point, and should be the finest possible in the shank. It is entered very obliquely at the lower and outer quadrant about 1‴ from the corneal margin. Its point is then pressed against the centre of the capsule, and a puncture made with a view to ascertain the consistency and nature of the cortex. This done, the operator decides whether to remove the cataract in its capsule or not. If he decides to lacerate the capsule, the point of the needle is carried round the upper and inner margin of the lens with a semicircular sweep, and then across the lower and inner margin with a second sweep, two semicircles being joined above and below by separate movements of the needle if necessary. It is then withdrawn slowly and carefully; and if its passage through the corneal layers has been sufficiently oblique, there will be no loss of aqueous humour, and the pupil will remain dilated as before. If, however, aqueous has unavoidably been lost, the operation had better be completed on the following day, or even a week later. The subsequent steps of the operation will depend upon the information obtained in the first step. Any of the numerous modifications of Graefe's operation, or the old flap operation, or the Warlomont or Liebreich operation, may be employed according to the supposed suitability of the particular method to the case. Having, however, satisfied ourselves that the capsule is freely lacerated, it will generally be found that a much smaller corneal section will be necessary than if this has not been previously done; for the separation of the capsule from the cortex, and of this again in some measure from the nucleus, will have been favoured by the admission of the aqueous, and hence a much less amount of pressure will be required, and a smaller opening will be needed for its extraction. The only possible objection that is likely to be urged against this operation is that it may occasionally cause an escape of the aqueous humour, and so delay the completion of the operation; but this is an objection that will not have much weight. It is not likely to happen often, and when it does is of no consequence. In order to avoid it, it is necessary to have a very fine needle and to enter it very obliquely through the corneal layers. Perhaps some may object that the capsule cannot be so freely lacerated in this way, from the limitation of the movements of the needle; but this is a matter of experience, and it is practically not a serious obstacle to the success of the operation. It is essential, however, that the needle should be introduced on the temporal side of the cornea, either in the upper or lower quadrant; and hence the operator, if standing behind his patient, must use the left hand for the left eye, and *vice versâ*. If not ambidextrous, he had better, on operating upon the left eye, stand facing his patient and use his right, but this is hardly so convenient a position for the subsequent steps of the operation, and does not allow of so good a rest for the hand in this step as if the operator were behind. Each operator will find out for himself the most convenient and easy attitude, but for the ambidextrous there can be no doubt that the position behind the recumbent patient offers many advantages throughout the operation, and especially in the laceration of the capsule.

—

Observations on Hare-lip.

Sir William Fergusson is of opinion that the intermaxillary portion or portions involved in hare-lip is or are very frequently the cause of much annoyance to the surgeon, often, indeed, being almost the direct cause of failure in operations, and he records (*Brit. Med. Journ.*, March 28, 1874) his experience on this subject.

In the case of double hare-lip, with double cleft in the alveolar ridge, there may be great projection, or little or none. In the latter case, particularly if the columna and lateral portions of the lip be of good size, there may be no need for meddling with the intermaxillary mass. If, however, the projection be considerable, or what may be called great, and if the columna and side portions of lip be scanty, there ought then, in my opinion, to be no hesitation about taking away the projection at its junction with the vomer. The attempt to

push this part back by gradual pressure is troublesome, or well-nigh impossible, in most instances, even if, as has been proposed, its narrow neck be broken. In either instance, it has never been told from experience in what condition, in what direction, the teeth come in the part thus displaced. In either or both instances, I have no doubt in my own mind that the teeth, if they came at all, would so slope backwards as to be of no value either for show or for use. There is, however, indubitable proof that, without thus meddling with the part, there are only two incisors of respectable size, after all, and these are of such indifferent quality, that they had better have been dispensed with at the earliest date. I, therefore, never hesitate to remove the intermaxillary mass when it seems the least in the way of a satisfactory operation. The advantages of doing so seem to me greatly to preponderate, and, if there be cleft hard palate at the same time, there is far greater chance, in after years, of the gap becoming narrower, whilst, in adult life, there will be greater facility for the assistance of the dentist. But, I imagine, there is less hesitation or difficulty in the surgeon's mind in the case of capacious double gap, than when there is only a single one with considerable projection of the intermaxillary margin. It is to such cases that the chief object of these observations is directed. If it be difficult to apply compression on the intermaxillary portion in double cleft, it is still more so when only one side projects; for its base is broader and firmer. The instances where there is no special projection are common, and require no comment, as there is then, as regards this matter, no obstacle to a satisfactory and successful operation; but, when there is a projection, if considerable, it is a more serious obstacle to these results than those inexperienced may imagine. I believe that this condition is a frequent cause of failure in the ordinary operation, particularly if it be done without the truss-compressor on each cheek to push the lateral portions of the lip towards the mesial line. In such a case, the surgeon is naturally anxious to leave the alveolar ridge untouched, and, in accordance with a common practice, when it is desirable to secure union by first intention, when the stitches or needles are withdrawn, strips of plaster are carried from cheek to cheek to hold the union firm. Scarcely a greater mistake can be made, for the line of union in the lip being generally, under such circumstances, exactly over, or opposite to, the sharp angle of the projection of bone, the young cicatrix is pressed against it, and gradually thins away, until it is fairly split open, when the operation proves a failure. This, I have a strong impression, is an explanation of the failure of many cases that do not seem, in any special way, complicated. I do not mean that straps always conduce to this effect, and that, therefore, they should never be used. On the contrary, I have very frequently seen them of much service. But, if the single projection alluded to be conspicuous—in which case, there will always be a somewhat sharp, angular margin—it is, in my opinion, best to get rid of it at the time of the operation. In my own practice, I was at one time in the habit of cutting the projection away with sharp small bone-forceps, dividing gum and bone at the same time, and aiming chiefly at getting rid of the projection. This usually involved all the intermaxillary bone on that side, and implied, perhaps, little heed of what damage might be inflicted on the sound side, although, latterly, I always passed the blades into the mesial line between the intermaxillary bones, so as to secure this side from material injury. In the course of my experience, I fancy that I refined on this practice. I found that it was well to detach the portion as high up towards the nostril as could conveniently be reached, and here I discovered that, in all young subjects, there was only cartilage to be divided. This could easily be done with the knife or scissors, and so, for many years, I have used only one or other of these instruments. Usually, I have passed the scalpel through the mucous membrane, under the frænum, up between the bones, and divided the cartilage, periosteum, and gum, to sever the part; and thus the use of cutting bone-forceps has been dispensed with, for, to say the least, such an instrument is coarse-like and clumsy in an operation for hare-lip on an infant only a few weeks old.

Whilst I can offer little objection to this proceeding, I fancy that I have recently fallen on one equally efficacious and void of certain objections which, I think, might be urged against it. Instead of this sweeping wholesale abstrac-

tion, I content myself with making an incision, vertical, sloping, or horizontal, with a scalpel through the mucous membrane and periosteum, over the projecting piece of bone; with a few touches of the knife, or a little squeeze with finger and thumb, I so separate these tissues as to permit the entrance of a gouge of a quarter or three-eighths of an inch in breadth, with which I scoop out the body of the milk incisor-tooth in as far as it is formed, taking no heed of the cyst or of that of the permanent one, and even cut out such wall of bone as may be there; usually, at four or eight weeks, only small plates of bone. In this way, the hard projection is removed, and the tissues that remain offer no obstruction to the union of the junction of the lip in front, whilst the operation, as it appears to me, is less destructive, therefore more conservative, in character. There is thus left only the mucous membrane, with possibly some periosteum, which form a soft cushion behind the wound in the lip, and so the remaining intermaxillary bone is not divested of covering so thoroughly as when cutting instruments are passed in the mesial line to take all away on the offending side.

I have now adopted this plan in several cases, and have been much pleased with the effect and result. In one instance, I used a silk stitch to hold the edges of the wound in the mucous membrane together, but I doubt if it be needful, and I have not seen any spurt of blood from the deep part of the wound, such as that which I have often found, in other instances, has required the application of a pointed heated cautery. The wound has healed without attracting special notice. In the case where the stitch was used, the thread came away spontaneously, and, in the end, the gum appeared as if there had been no projection, and, therefore, no such operation.

—

Operation for Cleft Palate.

In the No. of this Journal for July we noticed an operation proposed and performed by Sir William Fergusson for the closure of cleft in the hard palate, after the failure of the ordinary operation of Langenbeck, or in cases where this operation is unsuitable. Although this modification has hitherto been remarkably successful, considering the severity of some of the cases in which it has been employed, it had one drawback. The two bony fragments were liable to become tilted. To obviate this, Sir. William (*Lancet*, June 20, 1874) has modified his operation. After paring the edges of the mucous membrane, he pierced the hard palate with an ordinary shoemaker's awl in two places on each side of the cleft, close to the margin, in such a manner that the holes on one side of the fissure were directly opposite those on the other side. A separate silk suture was then passed through each hole on one side, carried into the nasal cavity, and brought into the mouth again through the holes on the opposite side of the cleft. When the sutures were thus secured, the hard palate was divided on each side, outside the apertures, by means of a chisel in the manner previously described. The silk sutures were then drawn together, and the two fragments of bone brought into gentle apposition. Sir William remarked that since first performing this operation he had found that it had been previously recommended by Dieffenbach.

Though this last modification lengthens somewhat the operation, and increases perhaps the difficulties of its performance, it nevertheless greatly enhances its value. In due course we shall furnish our readers with the results of the cases treated by this means.

—

Tolerance of the Heart to Wounds.

Numerous examples are on record of lesions of the heart in various grades, punctures, contusions, etc., without resulting notable accident, without, indeed, any sign which would directly reveal their existence, without any appreciable trouble in the functions of this organ. We have called attention to such cases from time to time in our pages. Our former regretted collaborator Jamain has collected almost all the known cases of this kind in his *thèse de concours*

on wounds of the heart in 1857. Among the cases since recorded, we might recall as of especial interest that reported in the service of M. Piorry at the Charité in 1858. It was the remarkable case of prolonged sojourn of a needle implanted in the intraventricular cavity; the case by Prof. Brugnoli (Bologne) 1863, of wound involving both ventricles, terminating in recovery; the case by M. Tillaux, 1868, of sojourn for a year of an iron wire in the left ventricle; and, finally, the quite recent case of two punctures of the heart, without accident, in paracentesis of the pericardium, reported by M. Bouchut in one of his clinics, Dec. 1873.

Now we have a new case of violent contusion of the heart without the least apparent accident.

An old soldier was received during the early part of March in the Hôtel-Dieu, service of M. Richet, a few moments after an attempt at suicide. He had discharged a revolver upon the region of the heart. The ball entered below the left nipple, and did not escape, but made a track behind by the side of the vertebral column, where it seemed to be lodged. The wound occasioned very little inconvenience, and almost no dyspnœa. So little was his distress that the internes believed that the ball had not penetrated, but had simply traversed the circumference of the thoracic cavity. A careful examination with the *esprit* of M. Richet led to a contrary conviction. He recognized, in fine, by percussion, practised with great caution, dulness at the presumed level of the projectile. The summit of the left lung yielded a tympanitic resonance, and the ear applied to the chest perceived coarse mucous râles with the metallic bruit. Finally, there supervened some expectoration of pure blood, which could leave no doubt of the affection of the lung. The lung had been thus traversed, and there was left, most probably, hemato-pneumothorax.

As to the heart, it beat with its ordinary regularity. Nevertheless, M. Richet believed that he must maintain reserve as to a possible lesion of this organ, the orifice of entry of the ball being at the level of the apex.

M. Richet prescribed blood-letting copiously, *coup sur coup*, iced drinks, and internal hemostatics.

On the next morning the patient was seized with an attack of cough, which was followed by a sharp hemorrhage from the wound. With every movement of inspiration and expiration there escaped a considerable quantity of frothy blood, with the bubbling discharge of air. At the same time there developed emphysema of all the upper parts of the body. The heart remained always regular, as if impassive, as also the pulse. Death followed in the afternoon from the continued hemorrhage, which nothing could arrest.

At the autopsy was recognized a fracture of the rib at the level of the entrance of the ball. The path of the ball traversed the pleura and the pericardium successively, at the level of the apex of the heart, which was the seat of a small contused wound. About a tablespoonful of clotted blood lay in the pericardium. About the wound could be seen the traces of an extensive contusion of the surface of the heart, produced, without doubt, by friction against the fragments of the rib. The left inferior lobe of the lung was traversed in its whole extent.—*Clinic*, May 2, from *Gaz. des Hôpitaux*, April 4, 1874.

Congenital Curvature of the Penis, with Hypospadias and Adhesion to the Scrotum.

Dr. R. F. Wier reports (*New York Med. Journ.*, March, 1874) two cases, successfully operated upon, in which there existed a triple malformation, hypospadias, curvature of the penis, and adhesion to the scrotum. The rarity of the two latter conditions, which are generally, if not always, associated with hypospadias, may be judged from the fact that Guyon, in his excellent work on the "Malformations of the Male Urethra,"[1] has collected but four cases: one, on the authority of J. L. Petit, where curvature and adhesion were conjoined, and in which the penis was separated by operation from the scrotum, but the

[1] "Vices de Conformation de l'Urèthre chez l'Homme," 1863.

curvature remained; two others (Buisson,[1] and Dupont[2]), where adhesion only existed, and in which liberation was easily effected by division of the frænum-like band; and the fourth (Buisson[3]) where curvature only existed, and which is quoted by Guyon to show the superiority of the method used in that and in the present cases over that suggested by Petit, who advised making a series of minute incisions in the contracted urethral band.

Buisson, however, remarks that he has seen several similar cases, but gives no particulars. In Petit's own works,[4] however, besides the case alluded to above, where he did not operate himself, believing the case to be irremediable, is mentioned the *post-mortem* examination of a youth of ten or eleven years of age, afflicted with curvature of the penis and scrotal adhesions, whose case had been pronounced by him some time previously as being beyond the reach of surgical skill.

The excellent result obtained by Petit, as well as that obtained in the two following cases, disproves partially the doctrine of Roubaud,[5] who speaks of the incurability of this malformation, and calls the impotency with which it is associated absolute.

Case I. Isaac B., aged twenty-one years, was admitted into St. Luke's Hospital January 4, 1871 (service of Dr. Weir); with the following congenital malformation of the penis, the other genito-urinary organs being normal: The penis was strongly curved downward, so that the glans presented at the base of the scrotum, and was apparently held there by the integument of the scrotum being continued over the dorsum of the penis, a *raphé* on each side marking the junction of the parts, and forming at the glans the free superior portion of the prepuce. The glans was uncovered and the urethra hypospadic, and opening about half an inch from the site of the meatus, from which place it could be traced into the perineum as a short, tense band acting as the cord to the arc formed by the penis. This was demonstrated to be the urethra, and of normal diameter, by the passage of a No. 14 English sound. The patient passed urine between the thighs, although, by raising the partially movable glans, he was enabled to throw the jet forward, and thus avoid wetting himself. He contemplated marriage, and therefore asked for surgical relief. It was explained to him that, in the event of liberating the penis, the opening of the urethra would necessarily be carried further back, and even might seriously interfere with procreation. Desiring the operation performed, he was on the 9th of January etherized, and an incision made on each side of the scrotum sufficiently far from the body of the penis to afford skin enough to cover the under surface when released, and the flaps dissected up to the penis. This constituted the first step of the operation; the second consisted in separating the urethra, with the corpus spongiosum, from the corpora cavernosa as far back as the posterior margin of the scrotum. This required but few cuts of the scissors, as the band was only about one and a half inch long, and produced no effect upon the curvature of the penis. On stretching out the curved organ, the septum between the corpora cavernosa could be easily felt as a tense, thickened band, and its division constituted the third step in the operation. It was accomplished by a tenotomy-knife, introduced, however, not so far as described by Buisson, and cutting freely the septum in its lower part and about half-way between the glans and scrotum. Immediately after this section was made, the curve was readily abolished and the deformity thoroughly overcome. The transverse incision made involved, however, the tissues of both corpora cavernosa, and gave rise to troublesome and persistent oozing of blood, only arrested by a ligature placed around an acupressure-needle. The skin-flaps were then united by a suture on the under surface of the penis, and the gaping edges of the scrotal wound brought together without tension; having, however, first carefully secured the mucous membrane of the urethra by fine sutures to the

[1] Buisson, "Traitement de l'Hypospadias," p. 536.
[2] Dupont, "Moniteur des Hôpitaux," February 4, 1853.
[3] Buisson, *op. cit.*
[4] "Œuvres complètes," edition 1837, p. 715.
[5] "Traité d'Impuissance et de la Stérilité," 1855, p. 167.

integument at the posterior angle of the wound, that is to say, at the junction of the scrotum with the perineum. The penis was laid against the abdomen, without need of a retaining bandage, and cold-water dressings were applied to the parts.

The result of the case was exceedingly satisfactory, though at the situation of the needle there was tardy reparative action, not only from the presence of the ligature applied, but also from the frequent erections that ensued, enjoyed by the patient in spite of the pain therefrom.

The second case was similar to the preceding.

—

Sarcoma Testis, with Remarkable Complication.

Mr. Tyrrell communicated to the Surgical Society of Ireland (*Irish Hosp. Gaz.*, Feb. 1874) a case of sarcoma of the left testicle, which he had removed from a farmer, aged 40. The testicle had been retained in the inguinal canal, during the patient's boyhood, without any inconvenience to him. On his reaching manhood it descended into the scrotum, but until the last few years, when it began to increase in size, he could return it himself into the abdomen. He married six years ago, and has four children. On proceeding to remove the testicle (sarcoma of it having been diagnosed), it was found on opening the tunica vaginalis, that there was a portion of omentum in its sac, and attached to the testicle. This most unexpected and unusual complication was treated by ligaturing the omentum with a carbolized gut thread, and having cut through the part below the ligature, the stump of omentum and ligature was returned into the abdomen. The spermatic cord was tied *en masse*, and the diseased gland then removed. The patient recovered rapidly. On microscopical examination, the tumour was found to be a well-marked example of a spindle cell sarcoma. The complication in this case was one of extreme rarity, if not altogether unique. Mr. Tyrrell has not been able to find a similar case recorded. It was instructive as showing how cautious one should be, as Mr. Tyrrell observed, in applying an écraseur to the cord before the testicle is laid bare—a method of procedure which has been recommended by some surgeons.

—

On the Palliative Treatment of Cancer of the Rectum by Linear Rectotomy.

M. Verneuil, in a lecture given at the La Pitié Hospital, and reported in the *Gazette Hebdomadaire*, March 27, 1874, has demonstrated the advantages which may be derived from linear rectotomy in cancer of the rectum. Besides the three cases he published in a memoir, read at the Société de Chirurgie in 1872, he has since performed this operation in two other cases, with the effect of removing the pain and giving great relief. Up to that time rectotomy had been performed with the linear écraseur in the posterior median line, and as high as possible. In the fourth case, which formed the subject of M. Verneuil's lecture, he resected a small band about two centimètres wide, along the posterior wall of the rectum. To facilitate this operation, M. Verneuil cut a triangular piece of skin, of which the base corresponded to the point of the coccyx and the apex to the posterior commissure of the anus; this strip largely opens the postrectal cellular cavity, and allows the operator perfect freedom of working on the exposed rectum.—*London Med. Record*, June 17, 1874.

—

On Ligature of the Deep Femoral Artery.

Professor Azzio Caselli recommends (*Bullettino delle Science Mediche*, December, 1873) ligature of the deep femoral artery in cases where this vessel, or one of its branches, is wounded, and also where it supplies a large tumour of the thigh with blood. The operation, which was suggested to him by the failures that have attended ligature of the common femoral, is performed in the following manner:—

An incision, through the skin only, $2\frac{3}{4}$ inches long in thin, and 3 or 4 inches

long in fat subjects, is made from the crural arch outside the line of incision for ligature of the common femoral artery. The panniculus adiposis is carefully cut through, and the internal saphenous vein is isolated and turned inwards. The aponeurosis of the fascia lata is divided on a director, and the crural artery and nerve are exposed by tearing the cellular tissue; the vessel and nerve—the loose cellular tissue between them being torn through with a director—are held apart, and the deep femoral artery is exposed and tied.

Dr. Caselli performed this operation in a case of large tumour occupying the two upper thirds of the inner and posterior part of the thigh, before removing the tumour. The ligature was applied about four-fifths of an inch from the common femoral artery, just above the origin of the external circumflex. The operation was performed with ease, and there was not much hemorrhage. The patient died, however, of ichorrhæmia at the end of fifty-five hours.—*London Med. Record,* April 22, 1874.

—

On the Radical Cure of Varix by the Injection of Hydrate of Chloral.

Professor Luigi Porta, in an article communicated to the Royal Lombardian Institute, and quoted in the *Gazzetta delle Cliniche* (No. 1, 1874), gives an account of the clinical observations which he has made on the coagulant property of hydrate of chloral, and especially of its use in the treatment of varix.

He reports fifteen cases of varix of the leg treated successfully by the subcutaneous injection of hydrate of chloral, beginning with a gramme, and then reducing the dose to a half or a third of a gramme. The coagula are formed at once, and the patient is confined for a few days to bed, to obviate the risk of phlebitis. The coagula ultimately are absorbed, and the veins become atrophied, or remain pervious, though not varicose.

The accidents which may occur are the following: The thrombus may soften; but this only impedes the cure for a time. Phlebitis may occur; but it is slight, and disappears in a few days. Very limited suppuration may take place; it does not delay the cure, and perhaps depends on the escape of a small quantity of the chloral into the connective tissue. This may be prevented by drawing up the piston before withdrawing the needle. Circumscribed sloughing of small portions of the skin has been observed in old subjects, probably also from escape of the chloral into the connective tissue. Professor Porta thinks it probable that this mode of treatment will be found applicable also to varicocele (of which he has had a successful case) of various subcutaneous nævi, aneurismal varix, and hæmorrhoids.

Dr. Valerani, writing on this subject in the *Annali Universali di Medicina* for December, 1873 (*Gazzetta delle Cliniche,* No. 5, 1874), says that any new method tried for the cure of varix should be free from danger either immediate or remote, easy of application, and fairly constant in result. All these conditions are present in the treatment proposed by Porta.

In order to explain the *modus operandi* of this treatment, Dr. Valerani makes some observations on the venous circulation in the lower limbs. Until within the last few years, he says, it has been believed that the subcutaneous venous system of the lower limb is complementary to the deep venous circulation of the limb; that is to say, that the saphenous veins are destined to receive the refluent blood from the deep veins when the circulation in these is obstructed by muscular contration or by other causes. The error of this opinion, however, has been demonstrated beyond doubt by Verneuil, Le Dentu, and more recently by Giacomini. On examining the large anastomoses between the superficial and deep veins, it is always found that the valves have their concavity directed inwards; that is, they are so dispersed as to allow the blood to flow from the superficial to the deep veins, but not in the opposite direction. The reflux from the deep to the superficial veins is only possible when the valves are imperfect.

Varix of the subcutaneous veins is then a consequence of dilatation of the deep veins. The deduction from this is, that a fibrinous coagulum should be formed at the point where a valve exists in the normal state, so as to take its place, and prevent the reflux of blood from the deep to the superficial veins.

Professor Porta, not having taken into consideration the anastomoses between the saphenous and deep veins, does not say what points should be selected for making the injection of chloral. On the other hand, Dr. Valerani says that the points where the varicosity is hardest and most prominent, are those where the injection should be made; they indicate the neighbourhood of the opening of an anastomosing branch, where there should be a valve, which is, however, more or less insufficient.

The operation is very simple. The injection is made with a Pravaz's syringe, the point of the needle being inserted in the largest knots of the varicose zigzag. The patient should be standing, that the veins may be more tense; if he be in bed, they are rendered tense by the finger. There is no hemorrhage.

Valerani has seen the injection followed by softening of the clot, slight phlebitis, abscess, and sloughing; but, in spite of these complications, the result may be said to be always successful. The complications are always local, and are not attended by constitutional disturbance. It is sometimes necessary to repeat the injection, especially when the clot softens, and the vein opens and gives exit to some drops of black blood, threads of softened fibrin, and even drops of sanguinolent pus. After a longer or shorter time, the varix disappears, and the veins resume their normal dimensions, presenting the aspect of small cords, not tortuous or painful.

Dr. Valerani gives the history of several cases of large varix which he has treated with excellent result by this plan.—*London Med. Record*, March 4, 1874.

—

Amputation by the Galvanic Cautery.

Within the last two years Dr. Paul Bruns has performed twelve amputations of the limbs by the galvanic cautery; viz., eight amputations of the thigh, two of the leg, one of the forearm, and one of a finger. The use of the galvano-caustic knife did not prevent hemorrhage during the operation, while the galvanic wire, when carefully applied, did so. To prevent hemorrhage, the principal artery of the limb should be compressed, and the back flow of venous blood restrained by a circular ligature. Esmarch's method might be applied with advantage. The galvanic wire is most applicable in amputation by the circular method. The skin, having been cut through, is drawn back; the wire is then applied higher up, and the muscles and periosteum are divided; after which, the bone is sawn through. In the forearm and leg, the wire is passed by the aid of a needle through the interosseous space, and the muscles are divided in two portions. Towards the end of the operation, the current must be somewhat weakened, as the wire is apt to become red hot and cut through the tissues too rapidly. The large arteries must be tied after the operation. The eschar is very thin, but it affords security against secondary hemorrhage. The shock, pain, and traumatic fever, were very slight in all the cases. The progress presented nothing remarkable; the danger of pyæmia did not appear to be less than after operation by other methods; and the healing process was slow. Bruns considers that the merit of the operation lies in the greater security against hemorrhage and the small amount of constitutional disturbance.—*British Med. Journal*, April 11, 1874, from *Archiv für Klin. Chir.*, vol. xvi.

—

Primary Amputation of Upper Extremity, including Scapula and outer half of Clavicle; Entrance of Air into Subclavian Vein; Recovery.

John Clark, aged 14, a factory operative, was admitted into the General Infirmary, Leeds, under the care of Mr. Jessop, April 28, 1873. On the day of admission, whilst passing underneath some machinery by a route which he had been accustomed to take, his left arm was caught between large cogwheels, the teeth of which were about two inches long, and dragged, he thinks, quite through. He did not lose consciousness immediately, but was able to walk a few yards towards some fellow-workmen, when he fainted. After a temporary rally, he again became insensible, and in that condition was brought to the Infirmary. He had lost some blood, but not a large quantity.

On admission, he was extremely pale and very restless, tossing his head from side to side. The pulse was hurried and scarcely perceptible; the breathing irregular; the pupils dilated, and the eyelids closed. He was covered with cold sweat, and lay insensible, except when roused to temporary consciousness by loud shouting. The left humerus was found to be broken across between the anatomical and surgical necks; and the fractured ends, which were fully exposed, were very rough and jagged. The soft tissues connecting the limb with the trunk were all divided, except about three fingers' breadth of skin on the outer and posterior aspect of the shoulder. The subclavian artery, securely plugged, was seen faintly pulsating beneath the clavicle.

The operation was performed during the continuance of the shock. Ether having been administered on a sponge, the small bond of union between the arm and the trunk was divided by means of a small catlin. The tissues in front of the shoulder joint, though severely bruised, were carefully dissected up so as to make an anterior flap. The joint was then opened, and the head of the bone removed. The subclavian artery in the third part of its course was made secure by careful torsion. It was now discovered that there was a considerable deficiency of cover; hence it was decided to remove the scapula, which was at once proceeded with by reflecting the skin and dividing its upper attachments. The body of the bone was then grasped by the left hand, so as to put the muscles attached to the base on the stretch, which were divided from before backwards. Whilst cutting through the last attachments of the scapula, two distinct and loud whiffs were heard, caused by the rush of air into the subclavian vein. Digital pressure was immediately applied to the open vessel; but the patient became suddenly deadly pale and pulseless. The administration of ether was at once stopped; and, without waiting for a rally—whilst assistants were busy with artificial respiration, drawing the tongue forward, and dashing cold water on the face and chest—the operation was proceeded with, the remaining connections of the scapula being divided, and the outer half of the clavicle being removed by bone-forceps.

Only about three ounces of blood were lost; and only three arteries, including the subclavian, required twisting. The wound was well sponged out, and the edges were brought as near as possible by wire sutures; nevertheless a small space was left uncovered, from a deficiency of integument. A pad of lint was firmly strapped over the wound, and over that a flannel bandage was applied. Twice during the operation, his condition was most critical. As soon as he became conscious, brandy and water was administered. He was wrapped in blankets, and allowed to remain on the operation-table for several hours, occasionally taking a little brandy and water; thence he was removed to the ward, and, after lying for a few minutes before the fire, was placed on a water-bed.

For the first few days after the operation, he was feverish and delirious; but after that the temperature gradually decreased, his pulse became slower and stronger, and his general condition improved in all ways. The edges of the flaps and a considerable part of the anterior one sloughed; the sloughs separating on May 6th, leaving a healthy granulating surface, which on May 7th had about a dozen grafts of cuticle implanted, after which it healed rapidly.

He was allowed to get up for the first time on May 8th, ten days after the operation, and felt no inconvenience from so doing. The wound had perfectly healed on the 17th; and he was made an out-patient on June 21st.

August 18th. As he was walking in the streets, his foot tripped against a stone, and he fell heavily on his left side, hurting himself severely. He came to the Infirmary soon afterwards, when swelling and ecchymosis were found over the situation of the recent wound. He was put to bed, and had evaporating lotion applied to the injured part; but he became feverish and poorly, and on August 20th (two days after he fell), an abscess about the size of a hen's egg was opened over the cut end of the clavicle, giving exit to a quantity of fetid sanious pus, with some bubbles of air. This was followed by a slight attack of erysipelas, the redness extending for a few inches round the wound and in streaks down the back, from which he recovered in a few days. The

discharge gradually diminished in quantity, and the wound healed, so that he was discharged cured on August 27th.

October 20th. He came to report himself at the Infirmary, looking well nourished and strong. He said he had no pain, and was as well as before the accident.—*Brit. Med. Journ.*, Jan. 3, 1874.

—

Fracture of the Index Finger from Muscular Action.

Mr. Edward Bellamy, Senior Assistant-Surgeon, Charing Cross Hospital, records (*Brit. Med. Journ.*, March 28, 1874) a singular accident which occurred in the out-patient practice of Charing Cross Hospital March 16th, namely, fracture of the proximal extremity of the index finger of the left hand, as a result, presumably, of muscular action. A man, 55 years of age, in making a back-handed blow at his retreating son, as far as Mr. B. can understand, just missed striking him, thereby expending the extreme radial extension of his wrist without meeting with the expected amount of resistance. He immediately experienced great pain and loss of power over the hand, and, on his coming for advice, it was evident what had occurred; the fragment, which was freely movable beneath the skin, was drawn upwards by the extensor carpi radialis major, and powerfully abducted by the lower fibres of the first dorsal interosseous muscle; and, when these muscles were put in action, the deformity was singularly apparent. The line of fracture being considerably beyond the reflection of the synovial membrane, it is not probable that further complication will follow. When one takes into consideration the mode of development of the bone, the accident appears the more remarkable. The treatment was sufficiently obvious.

—

On Rupture of the Tendon of the Triceps Cruralis.

M. Gosselin describes (*Lond. Med. Record*, March 25, 1874) a patient, aged 62, suffering from slight locomotor ataxy, having above the left patella a great gap. On putting the fingers into this gap, the superior border of the patella could be hooked up, and the posterior surface of the bone felt. The patient stated that it was due to a fall four months before, and was followed by considerable swelling. He fell backwards, and pulled a piece of furniture on to the part injured. Treatment was inefficacious. M. Gosselin draws attention to two important and instructive points, viz: 1. The non-consolidation; 2. The treatment to follow in similar cases. 1. Consolidation in these cases is a rare event. M. Demarquay thoroughly treated this question in 1863, and has collected twenty-two cases. This accident is not extremely rare, and the scattered observations have been collected and published in the *Gazette Médicale* by M. Demarquay. Among these he found that there were some who rapidly became cured—after twenty or thirty days—and others were not benefited. In proceeding to inquire into the cause of this non-union, M. Gosselin admits that the explanation is not easy, seeing that tendons unite usually in other situations. Nélaton, in his *Éléments de Pathologie Chirurgicale*, insinuates that the want of success is due to inappropriate treatment, *i. e.* that the limb has not been rendered sufficiently immovable, and he attaches great importance to the dextrine bandage. M. Gosselin does not agree with this view, but believes that there are other conditions, such as idiosyncrasies, superadded to the treatment, which cause this unsatisfactory state of things. In the present case, M. Gosselin thinks that there was rupture of the synovial membrane of the joint as well—a rare condition, and one which he has seen a very few times.

2. In ordinary cases the success of the treatment depends much on the position of the limb, its immobility, and the application of a proper bandage. The limb should be placed on an inclined plane, the foot much raised, and, so that the immobility may be quite complete, a posterior splint must be applied, then, over all, an immovable bandage.

Use of Hot Water in Surgery.

Prof. Frank Hastings Hamilton reported in the early part of last year ten cases of surgical operations treated by submersion in warm or hot water, with allusion to a number of minor cases, all of which were remarkably successful. He now reports (*Med. Record*, May 15, 1874) six other cases with the comment that, "no treatment hitherto adopted, under our observation, has been attended with equally favourable results.

"Under this plan the area of acute inflammation is exceedingly limited; erysipelatous inflammation has been almost uniformly arrested or restrained, when it has actually commenced, and it has never originated after submersion; gangrene has in no instance extended beyond the parts originally injured, and when progressing it has in most cases been speedily arrested (in gangrene hot water, or water at a temperature of from 100° to 110° Fahrenheit, is to be preferred). Septicæmia and pyæmia have not ensued in any case in which submersion has been practised from the first day of the accident. Purulent infiltrations and consecutive abscesses have been infrequent, and always limited to the neighbourhood of the parts injured, and of small extent. Traumatic fever, usually present after grave accidents, when other plans of treatment have been pursued, as early as the third or fourth day, has seldom been present when this plan has been adopted, and in no case has the fever been intense or alarming."

Midwifery and Gynæcology.

Molar Pregnancy and Uterine Hydatids.

Dr. T. M. Madden exhibited to the Dublin Obstetrical Society specimens of both of the above conditions. The first case was that of a woman, aged 25, the mother of two children, the youngest of whom was three years of age. When Dr. Madden first saw her, she supposed herself to be in the fifth month of her third pregnancy. She had been attacked with pains and hemorrhage, and the os was of about the size of a florin. After a dash of hemorrhage the os further relaxed, and the uterus expelled a large mass of hydatids; these grew from a pedicle. The hemorrhage ceased after their expulsion. In the second case, a woman, æt. 40, mother of seven children, believed she was pregnant thirteen months. She thought she had felt quickening at the usual time, but when she considered herself to be six months gone, the motions of the child ceased, and the abdomen became flat. After due examination, Dr. Madden introduced the sound. The next day he was sent for. The patient had hemorrhage, and soon after his arrival, the uterus expelled a complete cast of its interior, at least one-third of an inch in thickness. The patient had been quite regular since. Dr. Madden referred to the various views which were held as to the nature of these bodies; whether they were the product of conception or not, or an abnormal growth. He, Dr. Madden, believed that they might occur in women of undoubted chastity, and that in many cases they were caused by ovarian disease.

Dr. Evory Kennedy said that he knew of no case in which hydatids were not the result of impregnation. The hydatid was a different form of disease from the mole; the latter appeared to be more of an intra-uterine polypoid growth, which it was sometimes necessary to detach from the uterus.

Dr. M'Clintock said that the term uterine hydatids was a double mistake, and a double misnomer: as these growths were not hydatids, and were not a disease of the uterus but of the ovum. The Medico-ethical question, as to how far the expulsion of hydatids is to be taken as an indication that pregnancy has taken place, was a most important one. He, Dr. M'Clintock, had never seen hydatids

occur except as a result of impregnation, and doubted whether there was any clear case on record of their having taken place in a virgin. An important fact connected with these so-called hydatids was, that the mass might be retained beyond the ordinary period of utero-gestation; as was shown by one of Dr. Madden's cases.

Dr. Madden, in reply, referred, among others, to Dr. Ashwell's cases of uterine hydatids occurring in females in prisons, in which pregnancy could not well be supposed to have taken place.—*Irish Hosp. Gaz.*, March 2, 1874.

—

On Lymphangitis in Puerperal Pathology.

Dr. Tilt read a very exhaustive paper on this subject, before the Obstetrical Society of London (*Lancet*, June 13, 1874). His conclusions were condensed in the following propositions: 1. Pelvic cellulitis, benign or septic, originates in the lymph spaces, and in the capillary lymphatics that have been wounded in some lesion of the utero-vaginal mucous membrane. 2. Wherever situated in the pelvis, cellulitis follows the same course, but varies in name and in symptomatology according to its topographical disposition, and to the organs and the tissues that circumscribe it. 3. From the patch of capillary lymphangitis implicated in a mucous membrane, lesion (inflammation) may spread to one or more of the nearest lymphatics, and may be benign or septic. 4. One lymphatic may pass on inflammation to another, so that a continuous chain of purulent lymphatics may extend from the septogenetic lesion to the lumbar lymphatic glands, and such acutely inflamed lymphatics often inflame their surrounding cellular tissue, their glands, and proximate organs. 5. When lymphatic glands do not succeed in barring the progress of inflammation, they also inflame their surrounding cellular tissue, and may thus cause an internal bubo wherever there be a pelvic lymphatic gland. 6. Occasionally peri-uterine inflammation has no other origin than this frequent origin of abscesses of the broad ligament. 7. Purulent lymphatics on their way to the lumbar glands may inflame the subserous cellular tissue in the iliac region, and thus cause iliac abscess. 8. The subserous lymphatics and the peritoneum are so intimately united by physical contact and physiological action, that it is almost impossible for subserous lymphangitis not to cause peritonitis. 9. The subperitoneal lymphatics being continuous with and contiguous to those of the ovary and the oviduct, they may be inflamed by subserous lymphangitis, particularly when it is septic. 10. The contamination of the blood by lymphatic pus leads to the inflammation of those parts that are in physiological connection with the lymphatic system, such as the serous and synovial membranes, and the spleen, whilst phlebitis more frequently causes metastatic abscesses, if it be not their sole cause. 11. Though often overlooked in *post-mortem* investigations, sporadic puerperal lymphangitis is not uncommon, but is more frequently met with in connection with, and eclipsed by phlebitis. 12. The worst cases of lymphangitis (puerperal) have their modified counterpart, and their presentment subdued, in non-puerperal pelvic pathology, and more frequently than is admitted lymphangitis is the cause of speedy death from uterine operations. 13. Whether women be poisoned by puerperal lymphangitis or puerperal phlebitis, the general symptoms are the same in nature and in intensity, and the local symptoms vary according to the amount and to the variety of its primary and of its secondary lesions. 14. The increase in size and in number of pelvic lymphatics during pregnancy, and their increased functional activity, strongly support the rule not to operate on pregnant women. 15. As the liability to puerperal lymphangitis is in direct proportion to the number and to the gravity of lesions inflicted on the utero-vaginal mucous membrane by tedious labours, it is advisable to shorten, by the use of the forceps, according to modern practice. 16. The bathing of a puerperal wound in an ichorous discharge is so dangerous that disinfecting vaginal injection should be made so soon as the lochial discharge becomes in the least offensive. 17. The innocuity of injecting a solution of tincture of iodine into the womb immediately after delivery, and of a solution of perchloride of iron very soon afterwards, warrants the injunction to inject

into the womb some strong disinfecting substance whenever the lochial discharge is fetid. 18. The frightful mortality that has attended some epidemics of puerperal lymphangitis justifies the horror of large maternities entertained by the profession.

Dr. Palfrey did not altogether agree with the author as regards the frequency of this disorder. It was, without doubt, more common in maternity hospitals than generally believed, and yet, though he was attached to one, he had never seen a case, and in the London Hospital they had never lost one. No proper comparison could be made between the London and Paris hospitals, the ventilation and hygienic arrangements in the latter contrasting unfavourably with the former. He would ask whether the author advised injecting iodine into the uterus three or four hours after labour, and whether there was no fear of the fluid passing through the Fallopian tubes into the peritoneum. He had seen one case where it was fatal. In another, Dr. Head injected the perchloride of iron into the non-pregnant uterus; death occurred shortly after, and iron was detected (post mortem) in the peritoneal cavity. He thought it was not prudent at any time to inject fluids like tincture of iodine and the perchloride of iron into the uterus. The results were often most disastrous. He would ask whether the author considered pelvic cellulitis and lymphangitis to be one and the same condition. He had never seen glandular enlargement in the pelvis in pelvic cellulitis, and it was not, as a rule, a fatal disorder. Remembering that what the author taught would go forth to the world, he desired to express his dissent to the views enunciated respecting the harmlessness of intra-uterine injections. If it was so difficult for fluid to travel along the Fallopian tubes, how was it that semen often traversed them, and we got extra-uterine pregnancy as the consequence? He considered it was very easy for fluid to pass.

On a Case of Rupture of the Vagina with Protrusion of the Bowels.

Dr. F. Fehling (*Archiv für Gynäkologie*, vol. v. part i. 1873) reports a case at the Gynæcological Clinik in Leipzig, occurring in a woman sixty-three years old, mother of thirteen children. Her last pregnancy was a miscarriage. The youngest child was twenty-three years old. All the labours were natural and easy with two exceptions, which happened together. In both instances the forceps were used. The last was thirty years ago; since then she had always had a falling of the womb. Every kind of pessary had been tried, but with no avail. For the last thirteen years, she had ceased to do anything for it. It invariably came down on standing, sitting, or walking, forming a tumour about the size of a child's head. When she lay down, it went up without any assistance. Whenever it caused her any inconvenience, she was in the habit of reducing it with her fingers. Whilst she was ascending the steps of the village well with a weight on her back the womb prolapsed. She hastily endeavoured to replace it with her fingers, using considerable force. She felt something give way, and immediately the bowels protruded.

Dr. Fehling was summoned eight hours after the accident, and found the woman in a state of collapse, with the small intestines protruding from the vulva, forming a mass as large as a man's head. The intestines were cool to the touch, showed no signs of peristaltic movement, and were of a purple colour. Putting the woman slightly under the influence of chloroform, he tried to replace the bowels, which he succeeded in doing, but could not retain them in position, from want, as it seemed to him, of sufficient room for so large a mass in the abdominal cavity. A second effort was made, the patient being placed on her knees and elbows, and completely anæsthetized, but with no better result. The woman rapidly sank, and died eleven hours after the accident, of shock. The *post-mortem* examination showed a great increase of omental fat and a thinning of the vaginal walls.

The author states that he believes this to be an unique case, as he finds no report of any instance of ruptured vagina under such circumstances; it shows how easily the vaginal walls may be torn in a case of prolapsus uteri of long duration. In all such cases, care should be used in reducing the prolapse. He

also thinks the inability to keep the intestines in position when replaced, arose from the capacity of the abdomen being diminished through the long-standing prolapsus uteri.—*London Medical Record*, April 1, 1874.

—

Treatment of Uterine Disease.

Dr. Thomas Addis Emmet, in some remarks before the Medical Library and Journal Association of New York (*New York Med. Journ.*, July, 1874), laid stress upon the fact that throughout the menstrual life of the female, the organs of generation exercise a dominant influence over the nervous system; in health, through the reflex system, they act as the fly-wheel to the mechanism. Therefore, he said, so soon as any serious local difficulty of a chronic character is established, the nervous force becomes lowered, general functional derangement supervenes, and impaired nutrition follows as a sequence. Although we are unable to cure the local difficulty until we have improved the general condition, yet we can set the ball in motion by lessening the local source of irritation. Unless we can control the pelvic circulation, and at least impart a temporary tone to these vessels, it will be found in the end that little has been accomplished. We have our remedies for local application within the uterine canal, and much can be accomplished by mechanical means when appropriate. But in the simple remedy, hot-water vaginal injections, we possess the most valuable means of relief when properly administered. Although it has now been many years since this remedy was first introduced into practice, but a small portion of the profession appreciate its use or understand its action. It is generally conceived that the application of heat by this method relaxes the vessels and increases the congestion. This it does at first, but, if prolonged, the capillaries are excited to increased action; as they contract, the tonic stimulus extends to the coats of the larger vessels, their calibre becomes lessened, and, with an approach to healthy action, the congestion diminishes. No one applies a hot poultice with the view of increasing the congestion of the parts, but, as any old woman would explain it, "to draw the inflammation out," that is, to lessen the congestion by causing contraction of the vessels. That such is the effect of the continued use of a poultice is shown by the bleached and wrinkled appearance of the tissues after its removal. We can cause capillary contraction also by the use of cold, and the effect is even more prompt, but, when reaction comes on, the tissues will become more congested than before. In brief, the immediate effect of cold is contraction, and with reaction we always have dilatation; heat, on the contrary, causes dilatation at first, and its action is followed by contraction afterward.

If a woman be placed on her back, with the hips elevated by a properly-shaped bed-pan under her, and a gallon or more of hot water at 98° or of a higher temperature be slowly injected into the vagina by means of a Davidson's syringe, the mucous membrane will become blanched in appearance, and the canal as diminished in size as if a strong astringent had been administered. While the hips are elevated, the vagina will retain, during the injection, a large quantity of water, which by its weight will distend every portion of the canal, so that it will come in direct contact with the whole mucous membrane under which the capillaries lie. The vessels of the neck and body of the uterus pass along the sulcus on each side of the vagina, and their branches encircle the canal in a most complex network. The vessels of the fundus, through the veins of which the blood passes by the liver back into the general circulation, communicate with those below by anastomosis. We can thus, through the vagina, influence directly or indirectly the whole pelvic circulation. We can so diminish the supply as not only to check congestion, but we can literally, by the use of hot water, starve out an inflammation. I know from my own personal observation that several of these injections a day, at 100° to 106°, will abort an attack of cellulitis if resorted to early enough, and their use persevered in, with the aid of rest and anodynes. These injections exercise a most beneficial effect on the reflex system by allaying the local irritation. I know of no better means for removing the nervousness and sleeplessness of an hysterical woman than a

prolonged hot-water vaginal injection, when administered by an experienced hand. These injections will frequently soothe a patient to sleep in less time than could be done by any anodyne in the pharmacopœia. To receive permanent benefit from their use, they must be continued until the patient is restored to health. They should be given at least once a day, and the best time is on retiring at night. The only position in which the patient can receive any benefit from them is on the back, with the hips elevated, as I have described. She cannot administer them properly to herself, and I know of no arrangement, by siphon or other means, which can take the place of an intelligent nurse. As the patient improves in health, the quantity of water can be diminished, and the temperature lowered until the injections are discontinued from daily use, but for some time they should be employed for a few days after each period.

In 1859 I first used tepid and then hot-water injections, in the treatment of a member of my own family; at that time and for years afterward cold-water injections, at a low temperature, were used by every one in the treatment of uterine disease. I continued to employ hot injections in my private practice until the autumn of 1862, when I was appointed to the charge of the Woman's Hospital. From that date to the present, in this institution, and in my private practice, nearly every patient coming under my care has been treated by this method, merely varying the quantity of water and the temperature according to the circumstances of the case.[1]

The patient will be in a better condition for getting out into the open air after we have lifted up a uterus with version, or prolapsed, by an instrument to aid in restoring the circulation through the organ. The general condition will, however, in all probability, yet admit of little local treatment. Beyond the vaginal injections, to which a little chlorate of potash, or any other remedy indicated, may be added, with a daily pledget of cotton saturated with glycerin, and introduced into the vagina, our treatment will be limited until we have directed our attention somewhat to the general system.

Death following the Use of Sponge-Tents.

Dr. De F. Willard exhibited before the Philadelphia Obstetrical Society (*Am. Journal of Obstetrics*, Aug. 1874) the uterus of a woman who had died after dilatation of the cervix uteri by sponge-tents. The patient had been married for eight years, but had never become pregnant. At one time, however, she suspected pregnancy, from having a six weeks' intermission between two menstrual periods, followed by a discharge of clots.

Before marriage she was regular, but afterwards the menses were scanty and painful. After he had introduced a pessary to relieve a slight anteflexion, the menses became more profuse and less painful. Offspring being earnestly desired, he introduced a sponge-tent to dilate the cervical canal, which was very narrow. The tent slightly dilated the canal, but as it closed up again, he introduced a larger one, which dilated the canal to the size of the little finger. This gave neuralgic pains, which she bore badly, although a stout-bodied woman. On a Friday he removed this tent and introduced a smaller one. Contrary to

---

[1] The action of hot water in surgery, as a means of preventing hemorrhage, was first brought to my notice by the late Dr. Pitcher, of Detroit. He stated that for many years he had been in the habit, when operating, of applying to a bleeding surface sponges taken from water as hot as could be borne. His explanation was, that, after a clot had formed in the mouth of a dilated vessel, the continued application of heat caused it, on reaction, to contract so firmly on the clot that secondary hemorrhage could not occur. With his views of the action of heat, when continued, on the coats of vessels, and my own in regard to the condition of the circulation in the pelvis, came the first suggestion to my mind of its application in the treatment of uterine disease. I have been so thoroughly identified with this mode of practice, that it seems scarcely necessary to claim the priority. Certainly, no one in this country is on record as an advocate for the practice previous to myself; and, as far as I have been able to ascertain, the same is true in regard to the practice of gynæcologists abroad.

orders the patient worked the next day (Saturday) at the sewing-machine. On Sunday morning he found her with a tender abdomen, extreme pain, fever, etc. The tent was discovered in the vagina, having slipped out of the canal.

The patient was placed upon opiates and supporting treatment, but died on the ninth day.

On post-mortem examination a small amount of serous exudation was found in the cavity of the abdomen. The parietal layer of the peritoneum was covered with lymph. An abscess containing about an ounce and a half of pus lay on the left side of the uterus. There had been extensive inflammation of the pelvic viscera; probably, at first, peri-uterine cellulitis, and then general peritonitis.

In the discussion which ensued, Dr. Ellwood Wilson reported an analogous case. The patient was desirous of becoming pregnant; she suffered with painful menstruation from malformation of the neck of the uterus. He introduced a sponge-tent on a Thursday. Fearing insufficient dilatation, he introduced another on Saturday morning. This was left in until Sunday morning. She seemed so well that he gave her permission to go down stairs. She, however, not only did this, but in the evening went to church. In the night she had a chill—on Monday peritonitis set in—on Tuesday she died.

Dr. H. Lenox Hodge also had seen a fatal case. He thought the use of tents was more dangerous than the profession believed. His case differed from the others in this particular, that the patient had been kept perfectly quiet after the introduction of the tents. The dilatation was desired by her husband, himself a physician, to facilitate the diagnosis of a suspected tumour. The first tent was introduced on Saturday, the second and third on Sunday and Monday respectively. Before the removal of the last, she complained of acute abdominal pain, and died of peritonitis in four days after. An autopsy revealed a double ovarian tumour, with the Fallopian tube of the right side firmly adherent to the uterus.

Dr. Albert H. Smith remarked that the only fatal case which he could attribute to the use of a tent was one complicated with a morbid growth. In this case he had once dilated the uterus successfully, and removed the tumour with an écraseur. The tumour recommenced to bleed eighteen months afterwards. He dilated with sponge-tents, and scraped away the tumour, which was a soft mass, probably a fibroid degenerating into a medullary sarcoma. Peritonitis set in, and the patient died in three days. He never hesitated to use tents, even in his office. The great danger was from their repeated use, when the uterus is in such an irritable condition that septic matter is readily absorbed. He did not hesitate to use a second tent, but he feared a third. He always required his patients to use an antiseptic wash while the tents were being used. For sterility or for dysmenorrhœa he often put in a sponge-tent the day before menstruation, and kept it in throughout the flow.

Dr. Goodell had one case to record of death following the use of three sponge-tents. It was a case of intra-mural tumour, and whether the peritonitis was owing to the tents or to the manipulation with finger and sound by the five physicians present, he could not say.

He believed and thought that the history of fatal cases following the use of tents proved that it is not the first tent nor the first batch of tents passed into the cervical canal that does the mischief, but those put in at the second or third visit. The first tent irritates and congests the cervix; its removal abrades the mucous coat, and from this raw surface are absorbed the fetid discharges or septic material generated by the succeeding tents. Influenced by this opinion, he now first stretches open the canal by the uterine dilator, crowds in the largest sponge-tent possible, and then insinuates around it several small laminaria-tents. He thus tries to accomplish the necessary dilatation by one instalment of tents. The use of detergent vaginal washes during the presence of the tents he always enjoins upon his patients.

On Incision of the Cervix Uteri.

Prof. R. Olshausen, of Halle (*Volkmann's Sammlung Klinischer Vorträge*, No. 67, 1874), considers incision of the cervix uteri, or, as he calls it, bloody

(*blutige*) dilatation of the neck of the womb, a subject worthy of careful study, both because its employment is unavoidable, and because it may be dangerous if performed in unsuitable cases. Gradual dilatation of the cervix is chiefly applicable to cases of pathological contraction of the canal. One has generally to deal with the relief of the milder or severer forms of dysmenorrhœa, or with the removal of sterility. Or, as indeed most frequently occurs, the two affections coexist.

Dysmenorrhœa is divided into three kinds: that arising from mechanical obstruction, the congestive, and the ovarian. The "gouty" and "neuralgic" are considered questionable.

Bloody (*blutige*) dilatation is advocated only in that small class of cases under the division of obstructive dysmenorrhœa, where it is dependent upon the small size of the external os. Whether for relief of dysmenorrhœa or of sterility, the use of the knife is strongly deprecated in stenosis of the internal os, and in contraction of the cervical canal from some lesion of the mucous membrane. The operation may be followed with good results, not only when there is an absolute and distinctly pathological contraction of the external os, but also where the os is normal or nearly so. On account of the small dimensions and dilatability of the soft structures, it is exceedingly difficult to measure exactly the size of the external os, and to find out where the pathological narrowing begins. If the os be with difficulty discoverable by the finger, and if the sound, guided by a practised hand, repeatedly slip past it and at last enter with a jerk, it may safely be considered as pathologically contracted, and it is very rare to find this condition unaccompanied with dysmenorrhœa. The mere passage of an uterine sound, with a diameter of three or four millimetres, is not a proof that the os is not contracted.

If sterility coexists with distinct mechanical dysmenorrhœa, we cannot err in assuming that there is a pathological contraction of the external os. When the removal of sterility is the object, we may even go further and perform incision of the external os even when the mouth of the womb is quite normal. Even if a careful examination of the patient fail to detect any assignable cause for the sterility, conception may still be prevented, some unknown conditions coexisting with a normal degree of contraction of the os, which dilatation of the os might cure. The dilatation of the os by the first labour is favourable to subsequent conception; and this is further shown by the cases of women who have been sterile many years rapidly conceiving after the birth of the first child.

The assertion of West, that openings large enough to admit an uterine sound must be capable of transmitting spermatozoa, is disproved by repeated observations. How the semen enters the uterus, has not yet been made out. That conception may occur without complete sexual intercourse, is true in exceptional cases; but the conformation of the organs, the relation of the bodies one to the other, both in man and the higher animals, during the sexual act, clearly shows that the male organ should come into contact with the external os uteri.

Olshausen strongly disapproves of bilateral hysterotomes as dangerous in practice, although apparently perfect in theory. He recommends Marion Sims's blunt-pointed bistoury. The blade should be passed up as high as desirable, and a cut made from above downwards, first on one side of the cervix and then on the other. The external os should then be deeply divided, so as to leave a gaping slit. On this latter point he lays great stress, as the tendency for the parts to unite is very great. The lips are best kept apart and prevented from uniting by tearing the adhesions down with the finger every twenty-four or forty-eight hours, and afterwards applying solution of perchloride of iron or the hot iron. Sponge-tents are condemned as liable to produce septicæmia. Laminaria tents are less objectionable. Before operating, care should be taken that no perimetric inflammation is present.

In sterility, where there is slight anteflexion with a concentrated external os, the ordinary lateral operation has seldom proved successful. The operation in these cases is modified by cutting a wedge-shaped piece out of the anterior lip.

In cases of severe catarrh of the uterus, it is advised to perform the bilateral

operation, as the wider and larger the orifices are, the easier is internal medication; still on account of the danger, it should be strictly limited to the most severe forms.

Finally, incision of the cervix must be accepted as an established therapeutical remedial measure, requiring, however, the greatest care in the performance and in the after-treatment. The author believes it is too frequently performed for trivial affections, and in a most reckless way. Such practice he cannot too strongly condemn, as most unjustifiable.—*London Medical Record*, March 18, 1874.

—

On Pyometra and Pyokolopos Lateralis from Abrasion of a Rudimentary Vagina, in a case of Uterus Bicornis.

Dr. Otto Braus (*Berliner Klinische Wochenschrift*, March 9 and 16, 1874) reports a very interesting case occcurring in the practice of Professor Spiegelberg. The person was twenty-six years old. She began to menstruate at fourteen. The catamenia continued regularly for a year and a half: then there was an arrest for six months, during which time she began to suffer from pressure on the rectum and bladder. On the return of the catamenia, this still continued. A tumour was made out by the medical attendant, and opened. No fluid came away, and she obtained no relief.

Another medical man was consulted, who punctured the swelling and evacuated a quantity of dark, syrupy blood. This gave immediate relief, and she continued quite free from all trouble until her marriage, which was about a year and a half before she came under the observation of Professor Spiegelberg, when she began again to suffer from pressure on the bladder and rectum, accompanied with dysmenorrhœa. She became pregnant nine months after marriage, and miscarried at three months. On her recovery she noticed a puriform discharge, which increased in quantity and became offensive. Whenever it stopped, she at once experienced discomfort in the bladder and rectum, with a forcing down of the womb. On examination, Professor Spiegelberg found a movable somewhat irregular elastic swelling, larger than a fist, situated in the front and towards the right side of the pelvis; it reached slightly above the anterior wall of the pelvis, and caused the anterior vaginal wall to project downwards. The cervix was pushed backwards and to the left, and discharged a copious purulent offensive matter. The uterine sound passed the normal distance to the left. As pressure on the tumour increased the flow from the os, the uterine sound was again passed with its point turned to the right. About two centimètres up the canal it slipped into a roomy cavity. A blunt-pointed bistoury was passed up the cervix, and an opening about an inch long made. The sac was emptied of a quantity of pus, and small stony hard blood-concretions. A distinct entrance into the left horn of the uterus could be felt; and about a centimètre and a half above the os a fleshy septum with a free border.

This relieved, but did not cure, the trouble. The sac was then slit down to the bottom with scissors. Upon examination, a right and a left inner os could be distinguished. The walls of the cavity had all the characters of vaginal structure. Per rectum, the bicornate uterus could be easily defined; the uterine sound passed four centimètres into the right horn. It was a case of uterus bicornis, with a cervix in common. The history proved that it could neither be a hæmatocele nor a cyst, the result of an abscess from parametritis.

The reporter of this case relates two somewhat similar instances occurring in the practice of Professor Breisky. One patient was a woman twenty-five years old, the other was thirty-eight years old. The latter had borne four children before any urgent symptoms arose to attract attention. In both were the tumours slit up, and the patients made excellent recoveries. The diagnosis is not easy. It was not until the cavity was opened, and the free border of the septum was felt by the finger, together with the point of bifurcation per rectum, that Professor Spiegelberg could be certain what he had to deal with. He was not a little indebted to the cases reported by Professor Breisky for coming to a right conclusion. It was not until the sac was emptied that the bifurcation of the cervix could be felt.—*London Med. Record*, May 13, 1874.

Medical Jurisprudence and Toxicology.

Poisoning by Colchicin in Beer.

Practising-physician Böttern, of Fauborg, presents (*Hospitals-Tidende*, March 18, 1874) the following report of this case:—

In the *Archives of Pharmacy and Technical Chemistry* for January, 1874, is to be found an article wherein the extent to which the consumption of *Colchicum autumnale* has increased of late years is pointed out; and Dr. Spiesz, of Frankfort, makes the remark that, while the manufacture of beer has quintupled during the last ten years, the profit from hop products has remained almost stationary. As it has been proved by chemical analysis that the alkaloid colchicin, contained in *Colchicum autumnale*, is used as a substitute for the bitter principle of hops, it is reasonable to suppose that colchicum is to a very large extent employed to adulterate beer. That such an adulteration is practised I have lately experienced, and shall in consequence communicate the following facts:—

On February 24 of the present year, four gentlemen, including myself, supped in the evening at a friend's house, and at supper were treated to English beer. About a quarter of an hour after our repast we all began to feel unwell, with oppression in the region of the stomach and frontal headache. Shortly afterwards three of us were seized with violent retching, which was repeated in the course of the evening, and to which in my own case was superadded a profuse watery diarrhœa.

Our attention was directed towards the beer, when the servant-maid, who was in a similar predicament, declared that she had that evening taken nothing except a little of the beer which was left. The fourth of the party was for the first time seized with vomiting later in the evening; and in one case the retchings continued through the night, whilst the rest of us slept well. Immediately after an attack of vomiting we felt much lighter, but the sense of oppression soon returned, and then the vomiting recurred. Before we separated in the evening we drank a strong cup of coffee; subsequently we felt well. Next day we were all indisposed, with a sense of oppression in the gastric region, a burning heat in the head, thirst, and shivering fits; in one of the party rheumatic pains in the back and limbs were experienced. In my own case, towards the evening of the 26th, an abundant crop of lichen came out on the face, spreading over the whole body. But after five days it commenced to disappear under the use of warm baths and the mineral acids. My condition has in other respects, when I except the inconvenient itching and occasional shivering fits, been good, and the digestion in order. The servant, who was in the sixth month of pregnancy, still feels some heat in the head, and has occasional vomiting—symptoms which have not since appeared in any of the rest of us.

The beer was sent in casks from England, and was bottled in this town. Each of us drank only a small tumbler of it, and the servant finished what was left in one of the glasses. The beer was rather muddy, and had a somewhat flat, but not an acid taste. I presume that the bottle from which we drank was one of the last in the cask, to which fact are due the muddy appearance and the strong action. Our host and a lady, who had latterly drunk small quantities of the same sort of beer, have occasionally suffered from slight frontal headache and cardialgia, with nausea, without being able to account for these sensations.

The symptoms we were subject to on the evening of February 25 presented some similarity to poisoning by arsenic or copper; but it at once occurred to me that, as the beer was imported, it had been largely adulterated with one of those modern substances—picrotoxin or colchicin. With the kind assistance of Apothecary Berg and Candidate-in-Pharmacy Dons, colchicin was proved to exist both in the beer which was still in the bottle we had drunk of, and in that contained in several other bottles.

Excepting Dr. Warncke's communication in No. 6 of the sixth annual volume of the *Hospitals-Tidende*, I have nowhere found a case of colchicum-poisoning

recorded. Dr. Warncke's case was very much more serious, which may be attributed to the more concentrated solution, and possibly the non-indigestion of food beforehand. The preceding meal and the speedy vomiting were in our case very important elements, so that in the course of a few days it is to be hoped we shall be perfectly recovered from the ill consequences detailed.

That this was an instance of poisoning by adulterated beer is beyond all doubt, and I trust that these communications (Dr. Warncke's and the present one) may possibly tend to the exercise of some control over imported beer.

Messrs. Berg and Dons intend to communicate to a pharmaceutical journal the mode of proceeding in the analysis of the beer.—*Med. Times and Gaz.*, May 16, 1874.

—

On Poisoning by Blistering Collodion.

Dr. Ernest Schwerin communicates to the *Berliner Klinische Wochenschrift* for November 3, 1873, a case of cantharides poisoning, the subject of which was a rather hysterical female, aged twenty-three, who had menstruated twenty days before, and, except for some nervous attacks, was in good health. A dispute with her mother threw her into a violent fit of hysteria. Her mother, in great alarm, seized a bottle which she supposed to contain a preparation of ether and valerian, and gave her fifteen drops or so on sugar. It was, however, a blistering collodion which she had taken, prepared by macerating one part of blistering fly with one of ether. The first effect was to relieve her, but in about an hour there was violent pain at the epigastrium, then cramps, and constant inclination to pass urine, with pains in the hypogastrium. Dr. Schwerin saw her about six hours afterwards. The patient was then trying to pass urine every minute; there was at times a sort of cataleptic condition, with glazy eyes, small pulse, and repeated vomiting. Opium, camphor, poultices, and almond emulsion were prescribed. Next day the urine, though free from blood, was highly albuminous. The tongue and throat showed signs of irritation. These symptoms continued slightly for two or three days. On the fourth day the urine was free from albumen, and the patient convalescent. There were never any erotic symptoms. Dr. Schwerin concludes from this that the old view of the aphrodisiac action of cantharidin is incorrect, and that Pallé (*Journal de Brux.*, li. Août, 1870) is justified in expunging it from the list of aphrodisiacs.

Dr. W. Bathurst Woodman has seen some cases of poisoning by cantharides; and, although all symptoms of eroto-mania were absent in some, males as well as females, in others this symptom was well marked. Doubtless much depends on the dose, and on the physical and psychical condition of the patient. In Dr. Schwerin's case the dose must have been very small. The true explanation of the discrepancy may perhaps lie in the fact, that cantharidin stimulates the whole genito-urinary tract, but that the urinary organs suffer most, and in some cases bear the whole brunt of the battle. There is a naiveté and straightforwardness in the narrative of some of the older cases, which has the ring of genuine metal about it. The curious reader may consult the cases by Duprest-Rony, Dr. Chauvel, Ambroise Paré, and others, quoted by Sonnenschein in his *Handbuch der Gerichtlicher Chemie*, p. 266. There is also recorded in a somewhat scarce book called *Anecdotes du* 18me *Siècle*, printed at London in 1785, an account of a ball given by M. le Compte de Sade, at which cantharides were mixed with the viands—particularly with some chocolate bonbons. This, although valueless as direct evidence, shows at least the current views of the day on the subject; it states: "tous ceux qui en avoient mangé, brûlant d'une ardeur impudique, se sont livrés à tous les excès auxquels porte la fureur la plus amoureuse; les femmes les plus sages n'ont pu résister à la rage utérine qui les travailloit. Plusieurs personnes sont mortes des excès auxquels elles se sont livrés dans leur priapisme effroyable, et d'autres sont encore très-incommodées" (p. 214).—*London Med. Record*, May 27, 1874.

CONTENTS.

Anatomy and Physiology.

Anatomy of the Kidney. By R. Haidenhain 97
Accessory Pulmonary Lobe of the Vena Azygos. By Dr. E. W. Collins . . . 97
Case of Siren-like Malformed Fœtus at Full Time, with a well-formed Penis on the Posterior Aspect of the Body. By Mr. William Maclaren 98
On Coughing. By Dr. O. Kohts . . . 99

Materia Medica and Therapeutics.

On the Mode of Action of Iodine and its Preparations. By Prof. Sée . . . 99
The Physiological Action of Apomorphia. By Max Quehl 102
On the Physiological Action of Hydrocyanic Acid, and the Pretended Antagonism of Hydrocyanic Acid and Atropia. By Prof. R. Boehm and A. Knie . . . 103
Bromide of Camphor, By Dr. Bourneville . 103
Antiseptic, Antifermentative, and Disinfectant Properties of Perchloride of Iron. By Carlo Paresi 104
On Carbolized Resin-Cloth. By Mr. Lund 105

Medicine.

Dengue. By Dr. H. C. d'Aquin . . . 105
On Tertiary Syphilis. By M. Fournier . 106
On a Case of Pseudo-hypertrophic Muscular Paralysis. By Drs. J. Lockhart Clarke and W. R. Gowers 107
Albuminuria as a Symptom of the Epileptic Paroxysm. By Dr. Max Huppert . . 108
Croup. By Dr. Roger 109
On Acute Purulent Inflammation of the Mediastinum in Typhoid Fever. By Dr. Frantzel 110
On the Diagnosis and Etiology of Unilateral Induration and Contraction of the Lung. By Prof H. Nothnagel 111
On Rest in the Treatment of Chest-Affections. By Dr. F. Roberts 112
Communicability of Consumption from Husband to Wife. By Dr. H. Weber . . 113
On the Treatment of Phthisis by the Phosphate of Lime and the Juice of Raw Meat. By Dr. Henry Blane 113
On the Influence of Anæmia on the Nutrition of the Muscular Fibres of the Heart. By Dr. Perl 114
Aneurism of the Abdominal Aorta successfully treated by the Administration of Gallic Acid and Subsulphate of Iron. By Dr. S. Fleet Speir 115
Tumours of the Spleen in Primary Syphilis. By Dr. A. Weil 116
Relation of Renal Apoplexy with Cerebral Hemorrhage. By Dr. Auguste Ollivier . 117
Remarks on Eighty Cases of Tapeworm. By Dr. T. Spencer Cobbold 118
Successful Treatment of Pityriasis Rubra. By Dr. Tilbury Fox 118
On a Method of treating Tinea Tonsurans. By Dr. Edgar A. Browne 120

Surgery.

The Action of Modern Bullets on the Animal Body. By Dr. Ernst Kuester . . 120
On the Advantage of opening the Capsule before making the Corneal Section in the Operation for Senile Cataract. By Mr. Spencer Watson 122
Observations on Hare-lip. By Sir William Fergusson 124
Operation for Cleft Palate. By Sir William Fergusson 126
Tolerance of the Heart to Wounds. By M. Richet 126
Congenital Curvature of the Penis, with Hypospadias and Adhesion to the Scrotum. By Dr. R. F. Wier 127
Sarcoma Testis, with Remarkable Complication. By Mr. Tyrrell 129
On the Palliative Treatment of Cancer of the Rectum by Linear Rectotomy. By M. Verneuil 129
On Ligature of the Deep Femoral Artery. By Prof. Azzio Caselli 129
On the Radical Cure of Varix by the Injection of Hydrate of Chloral. By Prof. Luigi Porta 130
Amputation by the Galvanic Cautery. By Dr. Paul Bruns 131
Primary Amputation of Upper Extremity, including Scapula and outer half of Clavicle; Entrance of Air into Subclavian Vein; Recovery. By Mr. Jessop . . 131
Fracture of the Index Finger from Muscular Action. By Mr. Edward Bellamy . . 133
On Rupture of the Tendon of the Triceps Cruralis. By M. Gosselin 133
Use of Hot Water in Surgery. By Prof. Frank Hastings Hamilton . . . 134

Midwifery and Gynæcology.

Molar Pregnancy and Uterine Hydatids. By Dr. T. M. Madden 134
On Lymphangitis in Puerperal Pathology. By Dr. Tilt 135
On a Case of Rupture of the Vagina with Protrusion of the Bowels. By Dr. F. Fehling 136
Treatment of Uterine Disease. By Dr. Thos. Addis Emmet 137
Death following the use of Sponge-Tents. By Drs. De F. Willard, Ellwood Wilson, H. Lenox Hodge, Albert H. Smith, and Wm. Goodell 138
On Incision of the Cervix Uteri. By Prof. R. Olshausen 139
On Pyometra and Pyokolopos Lateralis from Abrasion of a Rudimentary Vagina in a case of Uterus Bicornis. By Dr. Otto Braus 141

Medical Jurisprudence and Toxicology.

Poisoning by colchicin in Beer. By Böttern 142
On Poisoning by Blistering Collodion. By Dr. Ernest Schwerin 143

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 382. (*For List of Contents see last page.*) October, 1874.

Anatomy and Physiology.

On the Anatomy and Histology of the Testicle.

V. von Mihalkovics (*Bericht der Math.-phys. Classe der Königlichen Sachs. Gesellschaft der Wissensch.*, 1873), under the direction of Ludwig and Schwalbe, has investigated the course, structure, and contents of the seminal tubes, the interstitial tissue of the testicle, and the lymph-vessels and the bloodvessels of the testicle and epididymis. Besides those of the human subject, the testicles of the rabbit, guinea-pig, rat, mouse, dog, hedge-hog, boar, goat, bull, and several birds (pigeons, etc.), were examined. The paper is beautifully illustrated with several coloured plates. The author has arrived at the following conclusions:—

1. The convoluted tubules form a network by dividing dichotomously. The terminal branches arising from this division are connected together by loops. No bud-like dilatations of the wall of the seminal tubes are to be found in the cortical layer of the human testicle. The author thus disposes of the view that the convoluted seminal tubes arise by blind extremities, as supposed by Beale, Henle, Köllicker, and Sappey.

2. The tubuli recti are not simple prolongations of the contorted tubules, but excretory tubes, which lie in the tissue of the organ of Highmore and in the lower end of the septa. They are considerably narrower than the contorted tubules, and are lined with a low cylindrical epithelium.

3. Supporting cells (*Stützzellen*) and germinal nets (*Keimnetz*) are artificial products. They owe their origin to the coagulation of a tough substance, rich in albumen, which lies between the seminal cells. On the addition of hardening reagents, coagulation occurs, and a network appears between the seminal cells.

4. The interstitial cells are constituents of the testicle, whose analogues are also to be found in other organs (coccygeal and carotid glands, and corpus luteum).

5. The connective tissue of the testicle consists of finer and stronger bundles of connective tissue, which form networks and are enveloped by endothelial cells. The mesh-spaces are in many places bridged over by their endothelial membrane, which then passes over to and becomes continuous with the outermost layer of the seminal tubes, and also envelops the bloodvessels. These endothelial membranes consist of a wide-meshed trellis-work of exceedingly fine fibres of connective tissue, over which endothelial cells are stretched. Each such endothelial lamella possesses many fine openings.

6. The lymph-passages arise partly in the mesh-spaces of the connective tissue enveloped in endothelium, and partly in the spaces of the individual lamellæ of the walls of the seminal tubules. Proper lymph-vessels inclosed within tube-like walls do not occur in the parenchyma of the testicle In testicles where the interstitial substance consists principally of cells, the primary lymphatics form free passages between their cells. From here the lymph flows into larger excretory passages, which are already lined with endothelium.

7. A capillary network of bloodvessels, lying in intimate connection with the membrana propria, is closely woven round the seminal tubules.

8. The epididymis is not only an excretory tube, but also the place for the secretion of the fluid constituents of the seminal fluid. The bloodvessels form

a dense capillary network in the non-muscular wall of the canal of the epididymis. This network lies immediately under the cylindrical epithelium, and presents a striking resemblance to the divisions of the bloodvessels in the ovarian follicle.—*London Med. Record*, May 27, 1874.

—

The Structure of the Mucous Membrane of the Uterus and its Periodical Changes.

Dr. John Williams, Assistant Obstetric Physician to University College Hospital, London, presented at a recent meeting of the Royal Society of London a series of observations made on the uteri of nine women who had died in different stages of the monthly period.

In two of the uteri the menstrual flow had almost ceased, and the mucous membrane was wanting in the bodies of the organs. The muscular fibre-cells were more or less exposed in the cavity, and the meshes formed by their bundles contained glands and groups of round cells.

In one uterus menstruation had ceased three days before death, and the muscular fibres were not exposed in the cavity of the organ, but imposed upon them was a layer of tissue composed of fusiform and round cells. This tissue contained glands. The muscular tissue near the internal orifice was devoid of glands, but nearer the fundus it contained numerous glands.

In one uterus, in which the catamenial flow had ceased probably about a fortnight before death, the layer of superficial tissue was thicker than in the last; and near the internal orifice there was a marked and abrupt distinction between it and the subjacent muscular tissue.

In one uterus the flow had ceased three weeks before death, and the superficial layer was still thicker; and the distinction between it and the subjacent muscular layer was well marked, except at the fundus. The uterine glands were tubular, and arranged in some parts obliquely, in others perpendicularly to the surface. They were lined by columnar ciliated epithelium.

In two uteri menstruation was imminent, but the flow had not begun. In these the mucous membrane of the body of the uterus was fully developed, and had begun to undergo fatty degeneration. There was a marked distinction between it and the muscular tissue throughout the uterine cavity; it was highly congested.

In one uterus the menstrual flow had taken place for one day, and in another for two or three days before death. In these there was extravasation of blood into the mucous membrane, and the latter had in part been disintegrated and removed.

Menstruation appears essentially to consist, not in a congestion or a species of erection, but in growth and rapid decay of the mucous membrane. The menstrual discharge consists chiefly of blood and of the débris of the mucous membrane of the body of the uterus. The source of the hemorrhage is the vessels of the body of the uterus. The mucous membrane having undergone fatty degeneration, blood becomes extravasated into its substance; then the membrane undergoes rapid disintegration, and is entirely carried away with the menstrual discharge. A new mucous membrane is then developed by proliferation of the inner layer of the uterine wall, the muscular tissue producing fusiform cells, and the groups of round cells inclosed in the meshes of the muscular bundles producing the columnar epithelium of the glands.—*Obstetrical Journal of Great Britain*, August, 1874.

—

Accessory Lobe of Right Lung.

E. W. Collins laid before the Royal Irish Academy, April, 1874, a specimen illustrating an accessory lobe of the right lung, taken from the body of a male subject, aged about fifty years, in the dissecting-room of the University of Dublin. The specimen presented a threefold morphological peculiarity as regarded lung, pleura, and azygos vein. An accessory lobe, measuring four inches in length by two and a half in breadth at its widest portion, sprang from

the angle between the root and the upper portion of the right lung, immediately above the bronchus. It was somewhat pyriform in shape, and rested upon the right side and front of the bodies of the five upper dorsal vertebræ, in an accessory pleural pouch. The pouch was formed by a duplicature, which depended from the cone of the pleura. It was continuous with the costal pleura externally along a line corresponding to the heads of the five upper ribs, internally along the mesial line of the five upper dorsal vertebræ. Between these points it arched over the accessory lobe, and isolated it from the remainder of the lung. It extended underneath the trachea, and invested the right side of the œsophagus. The azygos vein, instead of arching over the bronchus, arched over the peduncle of the accessory lobe, lying in the lower free margin of the pleural duplicature. This was the only specimen of the kind that had been noticed in Dublin, though seven similar cases had been recorded elsewhere. Stress was laid upon the suggestion of Prof. Cleland, made in this *Journal* (May, 1870), that an abnormal course of the azygos vein during the process of its development, whereby it drew down around it a pleural fold, and thus isolated a probably adherent portion of the lung, offered a satisfactory solution of the mode of formation of this accessory lobe. The author pointed out that a remarkable confirmation of this theory was to be found in an unique case recorded by Wrisberg of a similarly situated accessory lobe of the left lung, where the left azygos or superior intercostal vein preserved its fœtal condition by opening into the left vena innominata. The author regarded such a case as that described by Pozzi (*Report*, VIII. 174), and a similar one on the left side by Rektorzik, as merely higher developments of pulmonary notches. The paper concluded with an allusion to accessory bronchi in their connection with this subject.—*Journal of Anatomy and Physiology*, May, 1874.

—

On the Act of Vomiting.

Carl Greve (*Berliner Klinishe Wochenschrift*, July, 1874) says that, although the experiments of several physiologists, and especially those of Magendie, seem to prove that the stomach is entirely passive during vomiting, and that the expulsion of its contents does not depend in the least on the contraction of its walls, yet numerous others still assign to it a more or less active *rôle*. The existence of a nervous centre for the act of vomiting, its situation and the nervous communications connected with it, being all more or less uncertain, Greve undertook some experiments to settle the disputed question. He made use of apomorphia, which he finds to be the most certain and speedy of emetics, and accompanied by far fewer concomitant and subsequent effects than any other. Vomiting occurs after division of the vagi. The negative results obtained by Quehl in this respect were due to his having tied the dogs experimented on upon their backs, in which position they hardly ever vomit except when their stomachs are full. When dogs have emptied their stomachs in the morning by violent vomiting, they will not vomit in the afternoon when tied either upon their backs or bellies, but will do so at once if set free and an emetic administered. They vomit more easily when placed on their bellies than on their backs. After the injection of apomorphia apnœa cannot be produced; and, *vice versâ*, when vigorous artificial respiration is kept up, it counteracts the emetic power of apomorphia. The centre for vomiting is identical with or close to the respiratory centre. The nervous path along which the irritation is propagated from the vomiting centre to the organs concerned in the act, lies in the spinal cord as far as the sixth dorsal vertebra. When the cord is divided below this point vomiting still occurs, but not when the point of section is above this vertebra. The stomach takes no part whatever in the act of vomiting.—*London Med. Record*, Aug. 19, 1874.

Materia Medica and Therapeutics.

The Action of Alcohol.

From the extent to which alcohol is used as a food and as a medicine—to say nothing of its employment in intoxicating people, which, as we too often forget, means poisoning them—one would imagine that its place and power would have already been tolerably well settled, and its mode of action pretty well ascertained. Every-day experience shows us, however, that this is not the case; and very few, even among those who have paid most attention to the subject, are quite sure how much alcohol may be taken either by a healthy or by a sick man without injury, or what effect it will have when used in moderate quantities. We, therefore, gladly welcome the publication of such experiments as those which Dr. PARKES has lately communicated to the Royal Society.

The object which he had in view was to ascertain the influence of ordinary or ethyl alcohol on the temperature, pulse, and respirations of a healthy man. He obliged a healthy young soldier to take exactly the same amount of food and exercise every day for several days together, and carefully noted the temperature, pulse, and respirations. For the first six days, no alcohol was given; but on the following five days the soldier took a certain quantity of raw brandy every day. As his diet and exercise remained the same as before, any change in the temperature, pulse, or respiration, must be attributed to the action of the alcohol. He finished breakfast every day at 7 A. M., and then lay in bed till 2 P. M., when he rose and took exercise. At 9 P. M. he went to bed. The brandy was given at 11 A. M., four hours after breakfast. The first day he took one fluidounce of undiluted brandy (equal to half an ounce of alcohol); on the second day, two ounces; on the third day, four ounces; on the fourth day, six ounces; and on the fifth day also, six ounces.

The results of these experiments, and of others previously communicated to the Royal Society, showed that the temperature of the axilla and rectum was hardly altered by the alcohol. It certainly was never increased; and, though it seemed to be slightly lowered, this was not quite certain; and, if any lowering did occur, it did not exceed 0.35° Fahr., and may not have been more than 0.07° Fahr. In these experiments, the temperature had been raised by the food taken at breakfast-time, and had again begun to fall, the process of digestion being nearly finished. When alcohol was given during fasting and rest, it lessened the temperature much more distinctly, though still only slightly, the diminution never exceeding half a degree Fahrenheit. It was greatest one or two hours after the dose had been taken, and was evidently passing off after three hours. If given with food and either usual or increased exercise, alcohol produced no effect whatever on the temperature, even when the quantity amounted to so much as from four to eight ounces of absolute alcohol, equal to sixteen ounces of brandy, in twenty-four hours. In no case did it raise the temperature. When the man experimented on was at rest, the pulse was quickened from five to ten beats per minute after the alcohol had been swallowed, and remained quick for some time. When exercise was taken, the increase in rapidity was still greater. After the effect of alcohol had passed off, the pulse-rate fell even below the normal, so that the number of beats in twenty-four hours was not increased unless the amount of alcohol had been large and repeated. The pulse became fuller and softer to the touch; and it was evident, both from sphygmographic tracings and from the redness of the skin, that the radial artery and the cutaneous capillaries were relaxed and dilated. The respirations were not increased in number; in some experiments, indeed, they were lessened and became deeper, but the effect was not very marked. Alcohol, then, according to Dr. Parkes's exact experiments, has almost no action on respiration, and very little on temperature, which it slightly diminishes, but never increases. Its effect on the heart may be said to be stimulating, but not strengthening, and may reasonably be compared to that of a spur applied to a horse, quickening its movements for a time, but not actually increasing its strength as a feed of corn would do.

Such being the case, Dr. Parkes's results must induce physicians to consider most carefully to what extent stimulants are to be administered in disease; for every one knows that many a horse which might have reached its journey's end —at a snail's pace, it is true, but still safely—has utterly broken down on the road, in consequence of too frequent an application of the spur; and it is just possible that many a heart, which might have kept up the circulation feebly and languidly till the crisis of the disease was past, may have become exhausted and ceased to beat because it had been kept working beyond its strength for days or hours under the stimulus of alcohol. Whenever the circulation is becoming so weak as to be insufficient to sustain life, alcohol must at once be employed, and its beneficial powers will immediately become manifest; but the benefits to be derived from its administration while the power of the heart is still sufficient are rendered somewhat doubtful by Dr. Parkes's observations. It is, however, very difficult to apply the results of physiological investigations correctly to the treatment of disease; and the problems with which we have to deal are so complicated, that all our deductions must be checked by actual experience at the bedside. The slight effect of alcohol upon the temperature of the body in Dr. Parkes's experiments seems at first sight very extraordinary, especially when we remember the widely spread custom of men drinking spirits in cold weather to warm, and in hot weather to cool them. The conditions under which the experiments were made, however, afford a ready explanation of the result. The subjects of them were lying in bed both before and after they swallowed the brandy, and loss of heat from the surface of their bodies was, in all probability, prevented by the bed-clothes. Any change in the temperature of the body depends on a disturbance of the relation between the heat produced by it and that given off from it. If more heat be produced, the temperature will rise; and if less be produced, it will fall, supposing the heat radiated off or conducted away from the surface to remain the same. And, on the other hand, the amount of heat produced may remain unaltered, and yet the temperature will fall if the heat be abstracted more rapidly from the skin, and it will rise if heat be given off more slowly. The condition of the cutaneous vessels forms one of the most important parts of the great regulating mechanism by which the balance between loss and gain of heat is preserved in the organism. Whenever the temperature rises, these dilate, as we see in the flush of fever or after active exercise, and, by exposing the warm blood over a large surface to the influence of the air, with only a thin layer of tissue between, quickly cool it down, in somewhat the same way as we cool tea quickly by pouring it into a saucer. Cold has exactly the opposite effect; it causes the cutaneous vessels to contract, and thus drives the blood from the surface into the interior of the body, and prevents its temperature from becoming lower. The skin may thus become as cold as ice, but the vital organs are preserved from chill. Over the regulating mechanism just mentioned alcohol exercises a most important influence. As Dr. Parkes has observed, it dilates the arteries and capillaries, allowing the blood to stream freely through the cutaneous vessels, and imparting a ruddy tint to the surface. The consequence of this is, that a glass of spirits on a cold day allows the warm blood from the interior of the body to circulate over the surface, and imparts a temporary glow to the numbed extremities. But it only warms the outside at the expense of the inside; and the cooled blood, returning to the vitals, quickly causes a depressing chill to succeed the first feelings of comfort. So notably is this the case, that the gillies on a Highland moor will refuse a "nip" of whiskey, on the plea that it is too cold; and Arctic travellers unanimously denounce the use of spirits while exposure to cold continues. But the case is different after shelter has been reached, the wet clothes removed, and the individual once more seated by a warm fireside. The cutaneous vessels are slow to dilate after their long contraction, and so the blood cannot readily reach the surface, although warmth instead of cold is now applied to it. Consequently, it is a long time before the heat is conveyed to the interior; or, in other words, it is long before one becomes warmed through. If a little alcohol be taken at this stage, it materially hastens the process; it dilates the vessels; and the blood, no longer pent up in the interior of the body, circulates freely over the surface, and carries

the warmth of the fire back with it on its return. At the same time, the extra pressure of the blood on the internal organs is relieved, and the danger of congestion taking place in them, and leading to inflammations and catarrhs, is diminished; so that a dose of alcohol, under the conditions just mentioned, is popularly employed to prevent persons from catching cold. At the same time that the cutaneous vessels dilate, the activity of the sudoriparous glands is frequently increased, so that the surface of the skin may become covered with sweat, though previously dry. By the evaporation of moisture, warmth is rapidly abstracted; and, the blood being thus cooled, we can readily see why men drink on a warm day to cool them, as well as on a cold day to warm them. It is obvious that, when a person is neither exposed to cold nor heat, but is simply wrapped up in blankets, alcohol may alter the distribution of heat within the body, and cause the surface to become warmer by dilating the vessels. But, loss from the surface being almost entirely prevented by the woollen coverings, the temperature of the body as a whole cannot be much reduced by this means; and, as Dr. Parkes noticed a distinct reduction, we must look in some other direction for its cause. Besides, the fall did not attain its maximum till one or two hours after the alcohol had been swallowed; while dilatation of the vessels usually begins before many minutes have elapsed. Moreover, the fall was greater in persons fasting than in those whose temperature had been somewhat raised by food—the very reverse of what we would expect if it were simply due to more rapid cooling. These three circumstances point to diminished production of heat, rather than increased loss, as the cause of the fall in temperature. Professor Binz, of Bonn, has found that alcohol lessens oxidation in the organism, thus diminishing its calorific powers; and to this we must probably ascribe the results observed by Dr. Parkes. As alcohol lowers the temperature more during fasting than during digestion, it appears not improbable that it retards the oxidation of tissues more than that of the products of digestion. Should this be substantiated by further experiments, it will be of considerable importance with reference to the use of alcohol as a paratriptic. There are, however, many other points regarding the action and use of alcohol which require further elucidation; and, until they also are determined, we can hardly expect that the proper use of alcohol will be thoroughly understood. We, therefore, hope that Dr. Parkes will continue his observations, and examine the effects of alcohol on the digestive and nervous systems in the same careful, elaborate, and scientific manner in which he has already investigated its action on the circulation, respiration, and temperature.—*British Med. Journal*, April 4, 1874.

—

The Physiological Action of Propylamine and other Derivatives of Ammonium.

The *Comptes-Rendus de la Société de la Biologie de Paris* for 1873 (p. 246) contains an account of some experiments made by M. Laborde on the physiological action of the substances above enumerated, with especial reference to the great use which has lately been made of propylamine and its allies in France in the treatment of acute rheumatism. His results seem, as he himself remarks, to be but little in accordance with empirical views of their properties. The conclusions arrived at are as follows:—

1. Propylamine in the crude form, or trimethylamine, both act primarily on the central nervous system, especially its spinal portion, and produce, in physiological doses, excitement and increased functional activity of the cord, so as to react on the respiratory and circulatory systems, and to accelerate the heart's action. In poisonous doses depression follows this excitement, and at this period only (that is, if the doses are excessive) there is a retardation of the pulse and depression of temperature. Death results from cardio-pulmonary asphyxia. If trimethylamine be given to a dog by the stomach, it will be tolerated up to a dose of three grammes without vomiting, but by its local irritation catarrh of the mucous membranes of the stomach and duodenum is produced, accompanied by hyperæmia and superficial ulceration; and if it be

injected into the subcutaneous tissue it produces true sloughs. It can also give rise to hæmaturia from congestion of the kidneys.

2. The physiological action of chloride of trimethylamine is substantially the same as that of its base, but it differs from it by its slighter intensity, which scarcely attains that of half a dose of the other. Neither salt should be regarded as acting directly on the muscular tissues or as true cardiac poisons.

3. Trimethylamine and its chloride are in their physiological action on the nervous system rather analogous to the ammoniacal compounds in general, especially the chloride and acetate of ammonium; but while the latter salts even produce tetanic convulsions, trimethylamine and its chloride scarcely do more than produce muscular trembling and an exaggeration of the principal functions of the spinal cord.

Trimethylamine and its chloride (especially the former) are thus general functional excitants, and they rouse and accelerate the circulation more than they depress or calm it, for depression only succeeds large and long-continued doses, which injure the system by irritating the digestive and urinary organs. We cannot therefore look on them as true antipyretics, and they are also much inferior in respect of their exciting and stimulating action to the chloride and acetate of ammonium, and require to be given in much larger doses than the latter.

The trimethylamine was, in M. Laborde's experiments, injected into the dog's stomach by means of a sound, in doses of one to three grammes dissolved in fifty grammes of water, and the dose was repeated for twenty days.

Chloride of trimethylamine was injected into the dog's crural vein in five-gramme doses dissolved in fifty grammes of water, and chloride of ammonium was exhibited in the same way in a warm solution of from three to five grammes in forty of water.—*Med. Times and Gaz.*, Aug. 29, 1874.

—

General Remarks on the Internal Administration of Free Phosphorus.

Mr. J. Ashburton Thompson (*British Med. Journal*, August 29, 1874), in a paper presented at the recent meeting of the British Medical Association, submitted the following propositions. The action of phosphorus varies strictly according to the form and dose in which it is given; thus, a stimulant, a tonic, or a poisonous action may be elicited at will. The stimulant power may be enhanced by an adjuvant. The choice of adjuvants is limited, the best being ether. The dose to be given for this purpose must not fall below one-twelfth of a grain, nor be repeated at any definite interval; but the quantity may be advanced to one-eighth of a grain, and is to be repeated as the occasion demands. The objects for which it is proper to employ phosphorus as a stimulant were described as being: preparation for unusual mental or bodily exertion; relief from the effects of such exertion; as a remedy for the typhoid state, especially in the specific fevers. From the use of a stimulant dose in calling forth the rash in the exanthemata, and its diaphoretic powers, an analogy was drawn between the power of a stimulant dose of phosphorus and a violent purgative (croton oil) to remove an uncomplicated acute attack of trifacial neuralgia occurring in an otherwise healthy subject. The formulæ appropriate to the kind of stimulation desired in special cases were referred to and exhibited. The tonic power of phosphorus was considered. The mode of administration and the dose to be given for this purpose were described. The dose was fixed at one-hundredth to one-twenty-fifth of a grain. The dose must be carefully regulated within the prescribed limits, since phosphorus is appropriate as a tonic in cases in which its stimulant action would be disastrous. The special powers of phosphorus as a tonic were described as being: to renovate exhausted nerve-function; and to reconstruct altered nerve-matter. The facts from which these powers were inferred were detailed. The aphrodisiac power of phosphorus was not evinced under ordinary circumstances; but only if either the patient's sexual power were in abeyance, or if the dose given was excessive. Sexual excitement was therefore one of the signs, if not of poisoning, at least that the dose in use was excessive.

The Use of Quinia in Infantile Diseases, and especially in Hooping-cough.

Dr. Rapmund, in an essay on this subject (*Deutsche Klinik*, 1874, p. 167), remarks that quinia and cold affusions are the remedies which possess the most certain and energetic antipyretic properties. Both are particularly useful in country practice, when the practitioner cannot have recourse to therapeutic agents of too complicated a character, partly on account of the difficulty of seeing his directions properly carried out, and partly on account of the stupidity of the patients. The chief objections to quinia are its cost and extreme bitterness. Its power over febrile affections is, however, very great. In 1872, Hagenbach, in the *Annales de Thérapeutique Infantile*, demonstrated that quinia acts not only in lowering the temperature and moderating the frequency of the pulse, but in shortening the period of convalescence. It is at once, he maintained, an antipyretic and a tonic. His observations were made on children arrived at the period of second dentition. Dr. Rapmund, on the other hand, chiefly observed its effects in much younger children, some being still at the breast. He administered quinia in four cases of scarlet fever, eleven cases of measles, two cases of smallpox, three cases of erysipelas, nine cases of lobular pneumonia, and three of follicular enteritis. Country practitioners know very well that parents do not send for medical advice in the ordinary exanthemata unless serious symptoms appear. In such cases he speaks in terms of praise of the immediate administration of quinia. Previously to its being given, the child has often been in his practice excited, sleepless, delirious, and the cause of great alarm to the relatives. But as soon as a sufficient dose had been taken, the temperature and the frequency of the pulse fell, and the children enjoyed a calm and prolonged sleep. This hypnotic effect is of the greatest importance in children, enabling them to recover their powers during repose. Its value has been particularly insisted upon by Professor Jürgensen in respect to the treatment of croupal pneumonia. Quinia has also a marked influence in rendering the march of febrile diseases benign. Vogel, in the *Dictionnaire des Maladies de l'Enfance*, has recently declared that quinia is the only remedy that has succeeded in his hands in erratic erysipelas; and Dr. Rapmund has been equally successful. The dose was about two or three grains per diem. The strength of the patient must be kept up, especially when the erysipelas spreads. The affection in which quinia is serviceable *par excellence* is the lobular pneumonia of infants, and Dr. Rapmund prides himself on having obtained seven successes out of nine cases. In this disease death supervenes in consequence of cardiac insufficiency due to the violence of the fever, and it is obvious that quinia is exactly adapted to counteract this condition. When the extremities are pale and cold and cyanosis has set in, quinia is useless; but in a less advanced stage, when the febrile symptoms are acute and the temperature and pulse are much above the normal, quinia is formally indicated, and under its influence not only does the fever diminish, but the thoracic symptoms improve. The number of respirations, which often rise to eighty per minute, falls to thirty or less; the nostrils cease to dilate, the contractions of the diaphragm become less painful, and the child becomes calm. In cases of hooping-cough, quinia appears to diminish the violence of the attack, and better rest is obtained at night; and it appears to prevent complications, and to render the course of the disease much more uniform and benign. Children should be well supported either by means of milk or by beef-tea. In very feeble infants, small quantities of wine may be administered. In regard to follicular enteritis, careful treatment with a wet nurse is essential, and quinia is a valuable adjuvant. When from any cause quinia cannot be taken by the mouth, it may advantageously be administered in the form of a clyster. Dr. Rapmund prefers the hydrochlorate of quinia, and its intense bitterness may be to some extent concealed by the addition of a little glycerin to the mixture. The flavour is also masked by its being dissolved in coffee.—*Practitioner*, Aug. 1874.

Medicine.

Cases of Convulsion from Organic Brain Disease.

Dr. W. R. Gowers reported (*British Med. Journal*, August 29, 1874), at the recent meeting of the British Medical Association, a series of cases in which the commencement of the fit was deliberate and local, and the cerebral lesion was obvious and circumscribed. The first case was that of a child with old renal disease, who died after a series of unilateral (left side) convulsions. Each fit began equally in the two frontal muscles; then passed to the orbiculares palpebrarum, but affected the left more than the right; and then involved the angle of the mouth, the arm, and the leg, on the left side only. A series of fits, probably similar, had occurred two months before. After death, an old hemorrhage was found in the white substance of the right hemisphere, just above the lateral ventricle, involving, by its adjacent softening, a small portion of the gyrus fornicatus. The author pointed out that Dr. Broadbent's hypothesis, which explains the escape of the bilaterally acting muscles of both sides in hemiplegia, equally explains their involvement in a convulsion due to a lesion in one cerebral hemisphere. The second case was that of a man suffering from phthisis, who died after a series of convulsions beginning unilaterally by a special movement of the left hand and arm, and spreading thence to the side of the face and leg of the same side, and subsequently to the corresponding parts of the opposite side. After death, there was found an area of extreme congestion of the convolutions of the right frontal lobe, extending across the anterior half of that lobe from the longitudinal fissure to the short anterior limb of the fissure of Sylvius. The congestion was due to the extension of a thrombus from the superior longitudinal sinus into the vein from this part of the frontal lobe. The case derived its chief interest from a comparison with the results of experiments on animals. The affected area was anterior to Dr. Ferrier's centre for the movements of the hand in monkeys. The third case was that of a girl who had suffered for six years from convulsions with loss of consciousness, all the fits being preceded by an aura in the left wrist. By blistering above the left wrist, the aura had been for a time transferred to the opposite side. After death, a small tumour was found in the white substance of the left hemisphere. It contained two calcareous masses, and was evidently of considerable duration. If the cause of the convulsive attacks, and none other, were discoverable, it could only have produced an aura, and probably, therefore, commencing convulsion in the arm of the same side, by acting on the opposite hemisphere of the brain by means of the commissural fibres of the corpus callosum in which it was placed.

—

On Paralysis and Cutaneous Disease.

L'Union Médicale for June 30, 1874, contains the following case by M. Lancereaux. A woman, aged thirty-seven, keeper of a wineshop, had her cellars emptied during the insurrection of the Commune. After a month of great mental depression from this cause, she was suddenly attacked by left hemiplegia, without loss of conciousness, followed by aphasia. In six months she had recovered her speech, and in two or three more the paralysis had almost disappeared. From this time, however, her sight became weak, she felt severe pains in the loins, and afterwards in both legs, and a cutaneous eruption appeared on the feet. Nearly two years after the apoplectic attack she came under M. Lancereaux's care. There were then alopecia, left ptosis, with dilated pupil, and external strabismus. There was no palsy of the portio dura, and little or no remains of hemiplegia, but weakness of all the limbs. Sensation was perfect everywhere. She had severe stabbing pains in both legs. There was a scaly eruption with yellow crusts over the soles and backs of both feet, with slight redness and desquamation up the legs. While she was under observation large bullæ formed on one foot, and there was so much inflammation around it that it resembled erysipelas; the inguinal glands became also

enlarged and painful. Two months later a chronic slightly scaly eruption appeared first on one and then on the other hand, occupying the palms and wrist, and looking like syphilitic psoriasis. Meanwhile the patient kept her appetite, and the urine, pulse, etc., continued normal. The toe-nails became longer, thicker, and more distorted, the feet became completely covered with small white scales, with occasional bullæ, and on removing these the skin was found red, smooth, and tense, as if it had been burnt. The toes gradually atrophied, and the lymphatics could be felt as hard cords up to the inguinal glands. The affection of the hands also spread up to the elbows. About eighteen months after her first attack, the patient was seized with spasms of the neck and limbs, became unconscious, and died in twelve hours. The organs of the thorax and abdomen were found to be healthy; but for some unexplained reason the brain and cord were not examined. M. Lancereaux inferred that all the phenomena were due to some chronic disease of the nervous centres, affecting the nutrition of the skin by trophic nerves. [The unfortunate omission makes this remarkable case of less value than it should have been. Dr. Pye-Smith has seen at least three cases which he believes to correspond to that of M. Lancereaux. They were all in women, and began with coldness and numbness of the fingers, followed by redness and desquamation with anæsthesia and atrophy. In the earlier stage the appearance was like that of a chilblain, afterwards more like chronic eczema squamosum, and finally, in one of the cases, a patient of Mr. Cooper Forster's, at Guy's Hospital, more than one of the phalanges shrivelled and fell off. In this case there was a similar slow atrophy and dry gangrene of the toes. In none of these patients were there any symptoms of disease of the nervous centres, and it may well be that the cutaneous affection described by M. Lancereaux, as well as the hemiplegia, may have been both due to disease of the arterial system rather than to any primary lesion of the brain.]—*London Med. Record*, Aug. 15, 1874.

—

On the Functions of Brain and Muscle considered in Relation to Epilepsy.

Dr. J. Thompson Dickson (*Journal of Mental Science*, October, 1873) discusses some of the recent opinions as to the nature of epilepsy, and in particular those of Dr. Hughlings Jackson, who regards the epileptic phenomenon as the result of a "discharge" from a damaged portion of the brain, which he speaks of as a "discharging lesion."

Dr. Dickson's own views have been already stated in the *British Medical Journal*, November, 1867, in the *Journal of Mental Science*, July, 1869, and in the *British Medical Journal*, June, 1870, and he is of opinion that: 1. Epilepsy is a contraction of the cerebral capillaries and small arteries, the order of its stages in epileptic attacks being, first, irritation of the brain, either direct or secondary to exhaustion; secondly, contraction of cerebral capillaries and small arteries; thirdly, cerebral anæmia, and consequent loss of consciousness; 2. The muscular contraction and spasm, with all the phenomena of epilepsy, are secondary, and not essential or constant, but are all manifestations of imperfect nervous control, or a loss of balance between the nervous and other systems.

On certain points pathologists are agreed. We know with certainty that the seat of the lesion or lesions is the surface of the brain. The views of Drs. Bright, Wilks, and H. Jackson on this point are confirmed by Dr. Ferrier's well-known experiments of faradization applied to the cerebral surface. And that there is a condition of anæmia and contraction of the vessels at the time of the seizure, is proved by the experiments of Kussmaul and Tenner, by Dr. Dickson's own, and by observation of the pallor associated with the invasion of epilepsy.

Dr. Dickson disputes Dr. Jackson's theory that the normal function of nerve-tissue is to store up and expend force, which theory, he says, involves the notion that the nerve-force behaves as static electricity, and is capable of being accumulated in the cells of the gray matter, as the electricity is accumulated and discharged from a plate or jar, which he thinks not only improbable,

but impossible. "That the nerve-cells are capable of storing up motion in some mode or modes, is only in a very limited sense true; the principal modal changes which go on in the brain are chemical." The function of muscle is contraction and movement, and, when muscles are perfectly normal, they will, if liberated from control, perform their function spontaneously, and will continue to perform it until their potential energy is exhausted. The new-born infant, and the new-born cow or horse, move, not from mandates sent to their muscles from their untutored brains, but from spontaneity, from the tendency of the healthy muscles to perform their function. The seat of control over each muscle is the region or spot in the gray matter of the brain wherein its first motions were recorded, and which thenceforth was destined to become the controlling centre of its motion. That we may have loss of function of any organic tissue is perfectly true, but that we ever have over-function does not seem to be strictly physiological, or possible; that a tissue like the brain should "store up more force than in health," seems almost impossible. The function of the brain may be interfered with, and become irregular or cease; and as the healthy brain's function is not to give out discharges, but to maintain control, so the badly nourished brain, or the atrophied brain, loses its power of maintaining control, and the function becomes imperfect or irregular, and under some circumstances, altogether ceases. A fact which is distinct and clear is, that the seat of the expenditure of force in any movement is in the muscles, and not in the brain. A fact recorded by Galvani, and verified by Niobi, is that the set of the current in the nerves during muscular contraction is not in a direction from the brain to the muscle, but from the muscle to the brain. It requires no direct nervous stimulus from the brain to cause muscles to contract. Healthy and well-nourished muscles will contract, as is their wonted function when the brain is removed altogether, as in the decapitated. We may, therefore, from the evidence we have, conclude that the muscular contraction and spasm in epilepsy is the necessary consequence of a loss of cerebral control. If the damage be in one convolution only, we may have a local muscular contraction; if the lesion be in more than one, we may have contractions in several regions, or the whole brain may become anæmic, and the convulsions general.

Epilepsy, then, is not a display of sudden and ruthless expenditure of stored-up force, but is the manifestation of a condition of weakness and exhaustion, the primary seat of which is the surface of the brain. The exhibition of strength, we further see, is the loss of the potential energy of muscle, which it is the function of the nervous system to control and guard; and in the muscular exhaustion is to be sought the cause of the temporary paralysis which often succeeds epilepsy.—*London Med. Record*, April, 1874.

—

On Epileptic Sweat.

Dr. H. Emminghaus (*Archiv für Psychiatrie*, 1874) recently met with two cases which confirm some of Griesinger's remarks on epilepsy. In both of them epileptic conditions were present, and in both paroxysms of sweating, which in the woman were accompanied by feelings of giddiness, though this combination did not invariably occur in the man. In the woman there had been attacks in childhood, sweating with fainting at the climacteric period, and she had the peculiar epileptic expression, contraction at the corners of the mouth, form of skull, etc. In the other case there had been no true fits, only indefinite signs of them, but there was strong hereditary predisposition, and he indulged in spirituous liquors. Griesinger's remark was that "sudden outbreaks of sweat often are connected with epileptic nisus," and that all sorts of symptoms such as cold in the feet, sudden blushing, gastralgia, giddiness, should be borne in mind as connected with epilepsy, for then alone they get their true interpretation. The woman's case showed a fact noted by Griesinger, that often an epilepsy which appears in childhood disappears afterwards, and then returns after periods of ten years; she had been free from the fits since puberty, and the sweating began when she was fifty. In his book on diseases of children, Emminghaus relates the case of a boy affected with mitral disease, and whose

sister had *petit mal*, in whom, besides constitutional weakness there were muscular spasms and loss of consciousness when voluntary muscular efforts, such as running, were made. Many persons ascribe the sweating of epileptics to the excessive muscular action; but this is not always the case, for in the instances above noted the eruption of sweat was directly connected with the vaso-motor affection of the complaint.—*London Med. Record*, July 8, 1874.

—

Parotiditis as a Sequence of Acute Disease.

Professor Crocq, of the University of Brussels, has recently read an interesting paper at the Brussels Royal Medical Society (published in their *Journal de Médecine* for January), having for its title "Parotiditis Consecutive to Severe Acute Diseases."

He observes that this is one of the most serious and remarkable complications occurring in certain acute diseases, and especially in typhoid and typhus fevers, scarlatina, cholera, dysentery, measles, and smallpox. It is always to be regarded as a formidable phenomenon, and is met with at an advanced period of the affection during which it manifests itself. Thus in typhoid it occurs towards the third or fourth week, in scarlatina at the period of desquamation, and in cholera during the stage of reaction. The old writers admitted two forms of parotiditis, which they termed "critical" and "symptomatic," basing the distinction on the theoretical views of disease which then prevailed. A parotiditis was regarded as critical when it appeared towards the end of the disease, not only without impeding its resolution, but even favouring this by inducing a useful revulsive action, and diverting the peccant matter from the nobler internal organs to the salivary gland. When it appeared at an earlier period, and seemed only to add to the violence of the disease, it was termed symptomatic. The former was regarded of favourable, and the latter of unfavourable augury; but no proper character distinguished the one from the other. The view that then prevailed, that the cause of the parotiditis was the determination of the morbific principle to the parotid gland, is still admitted by some under the qualification of the term "metastasis," indicating, however, a purely hypothetical condition. It has also been sought to establish a more rational explanation by attributing the glandular affection to a pyæmic process; but this would only apply at most to a few of the cases. Even in certain cases of typhus and typhoid, which may seem to admit of this interpretation, the parotiditis coexists with no other alteration which can be attributed to pyæmia. It also is far from always going on to a state of suppuration, while this is rarely absent in lesions which are really pyæmic in their nature. Again, in true traumatic pyæmia we do not find any localization effected in the parotid gland, this being one of the organs in which the metastatic abscesses of that affection are most rarely met with.

Numerous observations enable Professor Crocq to establish what he believes to be a truer genesis of the phenomenon. Parotiditis is always accompanied by well-marked stomatitis, characterized by redness, turgescence, and hypersecretion of the mucous membrane of the mouth. This membrane is covered by deposits of various nature—mucous, epithelial, fuliginous, lining a more or less extended surface, especially the back of the tongue, and often also the gums, the teeth, the lips, and the inside of the cheeks. This stomatitis is well marked in typhoid and in exanthematic typhus, occurring especially at an advanced period of the disease, when it is aggravated by the action of the air on the buccal mucous membrane, as the patients generally lie with their mouths open. It is then also that the parotiditis is observed. The same conditions are observed to be present in the cases in which parotiditis supervenes during the stage of reaction in cholera; and in scarlatina and variola, stomatitis is one of their ordinary symptoms. In measles, too, the buccal membrane is often the seat of an eruption resembling that of the skin, and very appreciable, especially about the palate. When in the course of this parotiditis pressure is made on the parotid duct, a drop of pus is observed to issue from its orifice—a fact which M. Crocq has never found absent. It exists, indeed, from the very first

appearance of the complication, when the patient only complains of some pain in the parotid region, or some swelling is observed to exist there; and it is alike observable in the cases which terminate by resolution as in those which go on to suppuration—proving that this drop of pus does not proceed from suppuration of the gland, since it precedes and is independent of it. In fact, the stomatitis, having reached a certain degree of intensity, is propagated along the duct and its ramifications to the substance of the gland. In the same way the submaxillary gland may become affected, and a drop of pus be pressed out from the orifice of Wharton's duct. But this is quite exceptional, the stomatitis at the under surface of the tongue being generally absent or only slight.

This transmission of catarrhal inflammation to the excretory ducts and the glands themselves is no isolated occurrence, being met with in other parts of the body. Thus, the orchitis which succeeds to blenorrhagia is due to the propagation of the inflammation from the urethra by the vas deferens to the epididymis and the testis, this scarcely ever occurring before the fifth week, the epoch at which the irritation has reached the prostatic portion. This affection, exactly like parotiditis, was long regarded as being due to metastasis or to the action of peccant matter. In most cases, also, catarrh of the biliary ducts results from an extension of gastro-duodenal inflammation to the choledochus; and other inflammations may extend to the hepatic parenchyma itself and give rise to hepatitis—a fact M. Crocq has several times had the opportunity of observing.

Most authors have considered this inflammation of the parotid as originating in the cellular tissue surrounding it, and spreading thence to the glandular substance. Whenever M. Crocq, however, has had the opportunity of examination after death, he has always found the gland itself and its excretory duct the seat of inflammation. It is easy to explain how the error has arisen, as all the phenomena of inflammation—such as redness, exudation, and suppuration—are often much more marked in the interstitial cellular tissue, and they may even extend to the superficial cellular tissue, and there become predominant. This does not imply that the phenomena have originated there, but, as may easily be admitted, that they find there a soil better suited for their evolution. At all events, this is the point now insisted upon: the inflammation, proceeding by Steno's duct, necessarily and primarily invades the proper elements of the gland, which transmit it to the cellular tissue in which they are embedded.

These considerations lead to the prophylactic and curative treatment of parotiditis consecutive to acute disease. The buccal membrane must be kept carefully cleansed, and all desiccation prevented by means of emollient or slightly astringent applications. As soon as the first symptoms appear, whether these be pain or tumefaction, pressure must be exerted on the gland and its duct, so as to expel from the latter any irritating secretion which it may contain. At the same time leeches may be applied to the swelling, upon which should also be practised every three hours a mercurial friction, followed by a linseed-meal poultice. By these means resolution may often be obtained. —*Med. Times and Gaz.*, May 9, 1874.

—

On the Changes which certain Mechanical and Chemical Irritants produce in the Pulmonary Parenchyma.

W. Koch (Langenbeck's *Archiv für Klinische Chirurgie*, vol. xv) reports experiments conducted with all necessary precautions, in which the lungs of animals were subjected for a varying length of time to irritations produced either by the introduction of an acupuncture needle, or by the injection of solutions of iodine varying in strength from 1 in 120 to 1 in 20. The results have always been the same. The animals did not evince any signs of pain or of other general disturbance; only in a very few instances, in which the solution of iodine was very strong, the parenchymatous injection was followed by a short cough. There was no increase in temperature or in the frequency of respiration. On *post-mortem* examination, it was found that the irritated pulmonary parenchyma was converted into connective tissue.

The present experiments allow the conclusion that it is possible to convert pulmonary into connective tissue by means of parenchymatous injections of iodine, without producing constitutional disturbance of any kind.—*London Med. Record*, Feb. 4, 1874.

—

Connection of Inflammation of the Heart with Erysipelas of the Face.

M. Jaccoud (*Gazette Hebdomadaire*, 1873, No. 23) has observed that in a large number of cases inflammation of the heart, as endocarditis, pericarditis, or myocarditis, is associated with erysipelas of the face, and is disposed to regard the connection between it as close as that which exists between cardiac affections and acute articular rheumatism. In the majority of instances he finds the mitral valve affected, and more rarely the tricuspid; but he has never found the semilunar valves implicated. As a rule the cardiac disease is only temporary, and leaves no permanent defect behind it. The systolic bruit is most audible at the apex of the heart, and makes its appearance during the attack of erysipelas or a few hours before the occurrence of the latter. The bruit does not bear any direct relation in its loudness to the amount of febrile disturbance present. There is no articular rheumatism, pleurisy, or pneumonia accompanying the attack.—*Practitioner*, Jan. 1874.

—

Contraction of both Auriculo-ventricular Orifices of the Heart.

Dr. Hayden related to the Medical Society of the College of Physicians, Ireland (*Irish Hosp. Gaz.*, April 15, 1874), a case of this rare form of cardiac disease, in which he had made the diagnosis during the patient's life. Up to the present time, Dr. Hayden said, there were only eight cases of this form of disease recorded in the Transactions of the London and Dublin Pathological Societies. Three specimens had been exhibited at the Pathological Society of London, but the diagnosis was not made in any instance. In the Pathological Society of Dublin, five examples have been shown; the first by Dr. Stokes in 1862; the second by Dr. James Little in 1867; the third by Dr. Cryan in 1870; the fourth by himself in 1871; and the fifth by Dr. Cryan again in 1872. An advancing step towards our knowledge of this condition had been obtained by these cases, but no positive diagnosis was made in any of them. It was remarkable that only two out of the entire number of eight cases recorded, as above stated, were in males; and that all the cases, with two exceptions, occurred between the ages of 20 and 30. Case.—A female, aged 25, was admitted under Dr. Hayden's care, into the Mater Misericordiæ Hospital, on the 11th of March last. She had had measles when 16 years of age; had caught cold during convalescence, and had never been well since. Five years ago she spat blood, and subsequently had done so repeatedly. Menstruation stopped last Christmas, and her feet swelled three weeks before admission. There were general venous congestion, great œdema of lower extremities, depression of temperature, orthopnœa, constant dry cough, exceedingly rapid and feeble pulse, with evidences of pulmonary œdema and peritoneal effusion. The apex of the heart pulsated in the fifth intercostal space; there was no fremitus. At the apex a presystolic murmur was audible at the left side of the sternum; in the fourth intercostal space a second murmur, of the same rhythm as the apex-murmur, but harsher, and extending further back into the long pause, was also heard. Between the sites of these two murmurs neither was distinctly audible. Upon this latter fact alone Dr. Hayden ventured to diagnose the double lesion, assigning, however, due weight to the difference in harshness and length of the murmurs. The patient died three days after admittance, the feet and legs having become previously gangrenous. *Post-mortem* examination.—Fluid in pericardium. Heart weighed eleven ounces, and was of a globular figure. The tricuspid orifice was greatly contracted; the right ventricle itself was not dilated and thickened, and the endocardium opaque. The mitral orifice was still more contracted than the tricuspid, and was of a button-hole shape. The left ventricle was not dilated; its apex was remark-

ably thinned. Dr. Hayden said that from the knowledge he had gained from his former case he was enabled in the present instance to make the diagnosis. The facts upon which that diagnosis rested were: (1) The existence of two centres of murmur, one in the usual position of the apex, and the other corresponding to the junction of the fifth left costal cartilage with the sternum; and (2) That around these two points, respectively, the murmur faded off; and that between the areas of the murmurs there was a space in which neither murmur was distinctly audible. The fact of the right murmur being harsher and more prolonged than the left was due, in Dr. Hayden's opinion, to an entanglement of fibrin in the tricuspid orifice. The extreme venous congestion attending this form of cardiac disease, would alone warrant the suspicion of the twofold lesion. In all the reported cases there was an absence of intensification or reduplication of the second sound, which Dr. Hayden attributed to both ventricles being in the same condition. In reply to a remark from Dr. MacSwiney, Dr. Hayden observed that the area of diffusion of the right murmur fell short not only of the right side, but even of the mesian line of the sternum; and that he thought it a mistake to suppose that tricuspid murmurs are generally audible to the right of the sternum.

—

Case of Arterio-venous Aneurism of the Arch of the Aorta, the Cavity of which communicated with the left Brachio-cephalic Vein.

M. Chaboud reports (*Lyon Médical*, Dec. 21, 1873) the following case: S., æt. 56, came under Dr. Laure's care in November 1872. No special hereditary predisposition; good general health and vigorous constitution. Up to May 1872 his general health was excellent; no cough nor oppression of breathing. One morning patient awoke with a severe pain in the left shoulder, which next day extended to the arm, and disappeared on the following day, when the patient, looking in the glass, noticed that the left side of his neck and the lower half of the face were swollen, and little by little the swelling extended to the shoulder and affected the arm. This, however, disappeared entirely in fifteen days. A week later, the jaw, neck, shoulders, and arm again became enlarged, as also the left half of the thorax, before and behind. A little oppression resulted, but no pain. This œdema came and went, but always its disappearance became less perfect. In August the patient noticed that the veins of the left side were swollen, and the skin assumed a violet tint, while oppression of breathing became more severe. In September the symptoms increased, and the arm and hand became swollen. One day in October the patient, putting his hand on the swelling in the neck, noticed, for the first time, a sensation like the purring of a cat. No treatment had been adopted. He entered hospital in November. The cheek, left half of neck, shoulder, and arm, were œdematous, and the chest of the same side, as far down as nipple. The forearm was covered by an eruption like acne; the skin was livid. The lesser veins under the skin were prominent and well marked. The large veins of neck and chest were twisted, swollen, and varicose. In some parts they formed plexuses of dark-blue colour, projecting like tumours. Two, especially, one over each sterno-clavicular articulation, were soft and reducible on pressure. The hand felt a considerable thrill in these tumours, especially in the left one. They were united by a large vein. In the regions both above and below the clavicle, the purring thrill was still more intense on pressure. Percussion signs were rendered doubtful by the œdema of the chest. A systolic *bruit de souffle* was extremely loud. The murmur was prolonged even to the second sound. It was strongest over the base. Sounds were clear, and with no murmur at the apex. Over the varicose tumours the murmur was continuous, but strengthened at the systole. Many other symptoms are detailed with much minuteness; the chief are: Weak pulse in *right* arm; dulness of chest on left side, both before and behind, with other evidences of condensation of lungs; slight expectoration, no cough, good appetite and digestion; habitual constipation; face pale, with livid lips; no weakness nor emaciation; no pain, but only oppression of breathing, brought on by walking or standing, or even lying on his back or on his right

side. The diagnosis of "an aneurism of the arch of the aorta, communicating with the left innominate vein," was made. Iodide of potassium and digitalis were given. During the next three months the swelling and difficulty of breathing rapidly increased, with loss of speech and weakness, and he died on 22d January.

Post-mortem.—Condensed and atrophied lungs, with pleuritic effusion. Heart was hypertrophied and atheromatous. About an inch and a half from the region of the aorta a tumour, as large as a small orange, was present. From this opened the innominate artery and the left innominate vein. The vena cava superior was to the right of the tumour, and had no communication with it, nor with the left innominate vein. This was not merely from the presence of a clot, but the coats of the vessels were perfectly united.—*Edin. Med. and Surg. Journal*, March, 1874.

—

Ailanthus Glandulosa as a Remedy for Dysentery.

In a recent issue of the *Archives de Médecine Navale* is published an official note, addressed by Dr. Robert, who is the medical chief of the naval division of China and Japan, to the inspector-general of the health service in the French navy, calling attention to a drug used by Chinese physicians in the treatment of dysentery. It consists of the root bark of the *Ailanthus glandulosa*, Desf., a plant belonging to the natural order Simarubaceæ, very common in the north of China and less so in Japan. It is also frequently cultivated in France and Italy for the purpose of shade, whilst its leaves have been used as food for silkworms.

The bark of the root is the only part employed. It is white when fresh, resembling mallow root, but it acquires a grayish tint in drying. It is fibrous and loose in texture, and is almost without smell. An infusion of this bark, however, exhales a slightly nauseous odour, and possesses an excessive bitterness resembling that of sulphate of quinia. The Chinese physicians employ the root in the fresh state only; but Dr. Robert, having been compelled to use some that had become dry, found no sensible difference in its action in the two states.

For administration, fifty grammes weight of the fresh root is cut into very small pieces and triturated with seventy-five grammes of hot water for a few minutes in a mortar, in order to soften the bark, and then strained. A teaspoonful of this strong infusion is administered as a dose morning and evening, alone or in a cup of tea. Taken in this form, it provokes vomiting. The medicine is administered in this manner during three days, the patient being kept upon full diet. After that time the ailanthus is omitted and the diet is altered to broths until health is restored. If after eight days' treatment the patient is not cured, the Chinese physicians recommence the use of the ailanthus; but Dr. Robert states that he has not met with a single case in which this resumption has been necessary, although he has had under his notice some where the disease has lasted several months, as well as others of more recent origin.

The principal symptoms which follow the administration of the ailanthus are said to be nausea, and sometimes vomiting, followed by a temporary lowering of the pulse. The disappearance of blood from the evacuations commences on the first day, and is complete on the second; the colic ceases a little later. The effect of the drug upon the colour of the evacuations is variable. Dr. Robert sums up by expressing his opinion that the administration of the *Ailanthus glandulosa*, as witnessed by him in China and Japan, gave superior results to that of ipecacuanha, astringents, alone or combined with opiates, or calomel. The remedy, he says, is only known to a portion of the Chinese physicians, a circumstance which he attributes to their custom of preserving the secrets of their practice.—*Amer. Journ. of Pharm.*, June, 1874, from *Pharm. Journ.* (London), May 9, 1874.

On the Therapeutics of Gall-Stone Colic.

The *Allgemeine Wiener Med. Zeitung*, of November 18, 1873, contains a short article on this subject, by Dr. W. Pichler, who is one of the medical men attached to the Carlsbad baths. He remarks that gall-stones are matters of daily occurrence in Carlsbad practice—at least in large practices. On this account the local doctors have a larger experience of these concretions than any other medical men. The severity of the pains is well known, and women often say that they are far worse than those of childbirth. On account of this severe character, and from the fact that all sorts of reflex phenomena, vomiting, severe rigors, epileptiform and other convulsions, and the like, are frequently associated, it may easily be understood that next to the application of warmth, in the form of cataplasms and baths, narcotics must play a leading part in the treatment; opiates, morphia by the mouth or rectum, and subcutaneously injected, and chloral-hydrate being all employed by turns. Success in the employment of narcotics for this object, depends very much on the skill of the prescriber—and he very seldom complains that there are too many medicines of this class. Nor is the mode of application indifferent. The result of much experience of some of the most painful cases is, that the best results are obtained from hydrate of chloral, combined with the internal or subcutaneous use of the salts of morphia. For it often happens that moderate doses of these preparations of morphia are of no use against the severity of the pains, and we may, from special reasons, be disinclined to have resort to larger and more dangerous doses. In such cases let a dose of chloral hydrate be administered, and we shall soon be gratified with the result. Trials of each separately, and of the two in combination, have convinced him of the superiority of the combination to the use of either alone. After Dr. Pichler had found this experimentally, he learned that others had made a similar discovery. For example, Nussbaum found that a patient, who had by mistake received a subcutaneous injection of acetate of morphia before being chloroformed, slept for twelve hours after the operation, and was during this sleep insensible to all kinds of painful impressions. Claude Bernard found that chloroform narcosis lasts much longer in animals to whom opiates have been given beforehand. Goujon and Labbé, from repeated experiments, announce that the combination of small doses of morphia with chloroform produces several hours' complete insensibility to pain, although there may be no sleep. Another French observer, Rabuteau, has made this experiment. He gave five centigrammes (=0.77 grain) of narcein to a dog, and then chloroformed him. After waking from the narcosis, the dog was quite insensible to pain, although he went round the room, and recognized his master. There was complete anæsthesia; he could be pinched, pricked, or have his toes trod on without any sign of feeling, and although full grown, sensation did not return till the next day. The combination of chloral hydrate and morphia offers similar advantages to the practical physician, and Dr. Pichler recommends it most strongly in gall-stone colic, in the passage of renal calculi, and in neuralgia.—*London Med. Record*, Jan. 21, 1874.

Granular Contracted Kidney in a Child Six Years of Age.

Dr. Barlow read a paper before the Manchester Medical Society (*Brit. Med. Journ.*, April 11, 1874) on the case of a child, aged, at death, five years and eleven months, whose first symptoms, noticed two years before death, were frequent micturition and the passage of a large quantity of urine (between three and four pints in the twenty-four hours). The prominent symptoms were peculiar brownish cachectic appearance of the skin, anomalous dyspeptic symptoms, deafness, etc. No albumen was found in the urine in the early stage (twelve months before death), but shortly before death the quantity of urine passed diminished to one pint in the twenty-four hours, and the amount of albumen was large. There was no œdema at all, and the child died in uræmic convulsions, without a trace of dropsy. On *post-mortem* examination, the lungs were found to be emphysematous, the heart hypertrophied, the spleen small,

hard, and firm, with evident thickening of the fibrous capsule. The liver was apparently normal. The kidneys were small, contracted, and granular, the right much smaller than the left, and in the larger were found one or two small cysts of the size of a hemp-seed. The microscopic appearances showed almost total disappearance of true glandular structure ; and the replacement by fibroid substance, and the contrast between this and sections of a healthy child's kidney, were shown to the meeting. The fibrous stroma of the liver was also found to be increased, when examined microscopically and compared with a healthy child's liver. The spleen showed increase of its fibrous stroma. Dr. Barlow believed the case to be unique in point of age. The nearest in that point was the case of a child, aged 9, mentioned by Sir W. Gull and Dr. Sutton.

—

Treatment of Lupus Erythematosus.

Dr. Theodore Veiel, in an inaugural dissertation (Tübingen, 1872), gives a record of all the cases of lupus erythematosus which have been treated at the institution of his father and brother at Canstatt during the past seventeen years, with a good description of its natural history, and a detailed account of the various forms of treatment employed against it. Up to the time of its publication, the best results were obtained by chloride of zinc in solution in an equal quantity of alcohol, used as follows : A blistering plaster is first applied to the whole affected part. The epidermal covering, which forms a thick and opaque coat, is then removed, revealing the deep-red velvety papillæ, sharply defined by contrast with the firmer and paler healthy portions. The diseased parts are then painted with the solution. The pain is considerable. The yellowish-white varnish-like crust which forms is removed by poultices on the third or fourth day, and the cauterized parts are found covered with epidermis, offering in this respect a marked contrast to lupus vulgaris, which exhibits, under similar treatment, a surface of exuberant granulations, which cicatrizes much more slowly. Points which still remain open quickly heal under the use of the alcoholic solution of chloride of zinc, diluted one-third with water. Cauterization in this way is repeated until the cure is complete. Although the scars are larger than after spontaneous cicatrization, they are not in the majority of cases disfiguring.

In an article on the treatment of lupus and lupus erythematosus (*Archiv für Dermatologie and Syphilis*, vol. v. part 2, and *Boston Medical and Surgical Journal*), Dr. Earnest Veiel gives a detailed account of the later method employed at the Cannstatt Skin Hospital, which is a combination of the chloride of zinc cauterization above described, and Volkmann's method of scarification. For this purpose, and to prevent the great loss of blood which often follows the use of the customary single lancet, 150 to 200 grammes generally flowing when the operation is prolonged for the necessary half-hour, in ordinary cases affecting the face, he has designed a set of blades placed side by side, and inserted in a common handle, by which six punctures are made simultaneously. The duration of the operation is reduced to five or ten minutes, and thus more immediate attention may be given to controlling, by pressure, the hemorrhage. On this account, too, the necessity for the use of anæsthetics during the operation is diminished ; although, as the author says, the principal effect upon the patient is not produced by the scarification and cauterization, but by the persistent pain which often lasts eighteen or twenty-four hours, and then "the danger which is a part of every administration of chloroform is out of all proportion to the amount of pain to be endured."

Directly after the puncturing, the parts are cauterized with the alcoholic solution of chloride of zinc. Superficial suppuration follows, and crusts form, which fall off in from six to ten days, after which the puncturing and scarification are again performed. This is repeated until a smooth and uniform cicatrix is formed, which subsequently becomes white. Generally, five to eight times are sufficient for a perfect cure. Relapses, however, are not wanting, even with this treatment, manifesting themselves as red points in the cicatrix, which by confluence are converted into true lupus spots ; but these are easily nipped in the bud by a repetition of the treatment.

In ordinary lupus, Dr. Veiel thinks this method effects a material reduction in the time of cure. A longer period, however, between the operations is required, inasmuch as ulceration often occurs in the parts most deeply cauterized, which must be healed by repeated applications of the diluted solution of chloride of zinc before another scarification.—*London Med. Record*, Jan. 28, 1874.

—

On Alopecia.

In an article on alopecia published in the *Thèses de Paris*, 1874, No. 76, Dr. Courrèges states that he has demonstrated that the fungus of the *Alopecia areata*—the *Microsporon Audouinii*—is not situated, according to the statements of Gruby and Bazin, in the hair, nor even around it, but in the most superficial portions of the horny layer of the epidermis. M. Malassez has made this cryptogam a subject of special study, and presented a note regarding it to the Société de Biologie on December 27, 1873. The fall of the hair would not be due to a cryptogamic change in it, but to a vice in nutrition, induced by the presence of the vegetable parasite in the superficial parts of the epidermis. M. Courrèges therefore admits, like Gruby, Bazin, and Luiller, that alopecia is of a parasitic nature, but in an indirect manner. He rejects Hebra's theory, which makes alopecia depend on a disturbance of the organs of nutrition.

Alopecia achromatosa and alopecia decalvans would therefore be only two forms of the same disease. With regard to treatment, M. Courrèges prefers shaving to epilation, which is in conformity with M. Malassez's latest researches. The head should be shaved at least once a week, or even twice, and then washed with a solution of hydrochlorate of ammonia and corrosive sublimate, each one gramme, in 500 grammes of water. Sometimes M. Courrèges substitutes an ointment of 1 gramme of sulphate of mercury to 30 grammes of lard.—*London Med. Record*, July 1, 1874.

—

Hereditary Local Hyperidrosis.

M. Ollivier, of Paris, has recently recorded a case of the above affection, which, as far as he knows, has never been described before. Local hyperidroses are, of course, not so very rare, but it is their hereditary transmission which is here remarkable.

The patient is a man, aged 21 years, quite healthy, but afflicted since birth with constant sweating of that part of the skin of the face which is innervated by the right superior maxillary branch of the fifth nerve—namely, the lower eyelid, right half of the nose, the cheek, and upper lip of the right side. On the bridge of the nose the sweating extends a little beyond the median line towards the left, evidently from the interlacing of the terminal filaments of the contiguous nerves of the two sides. Even in extremely cold weather the affected half of the face is always moist, and this moisture may become intensified into a copious sweat, which runs down the face in streams. Its reaction is acid. Warmth, alcohol, exercise, and mental emotions (especially the last) cause the greatest flow of perspiration. If he takes part in an animated discussion, he is obliged to keep his handkerchief always applied to his cheek. The skin becomes injected when the sweating is most active; but in all other respects there is not the slightest perceptible difference between the right and left cheeks.

The patient's maternal grandfather had an exactly similar affection all his life; he died at the age of eighty-two. His aunt (mother's sister) and her only daughter also suffer, while her two sons are free from it. In all these cases the same nerve-district and the same side of the face are affected, and in none of them can any cause, direct or indirect, be discovered to account for it.—*Med. Times and Gaz.*, June 6, 1874.

—

Morbid Sweating of the Feet and its Treatment.

Dr. Debrousse Latour has lately published a thesis on local sweatings, in which the unpublished observations of M. Ollivier, of the Paris Faculty of Medicine, are incorporated with those of the author.

The forms of local sweating which offer the greatest number of interesting points are, according to Hebra, those which affect the armpits, the genital organs, the palm of the hand, and the sole of the foot. For the present, M. Debrousse Latour confines his remarks to the last-mentioned affection, which elevation of the temperature for the time being raises into a really insupportable condition of disordered function. The causes of this morbid perspiration are little known; it is not an attribute of the lymphatic temperament, nor always of a want of cleanliness; it is not contagious, nor does anything prove it to be hereditary. Its symptoms are well known, as well as the disagreeable accidents to which it gives rise.

The question arises whether it is prudent to accede to the wish of the patients who desire to be relieved from the annoyance of this affection. Without following the author through all his arguments, it will suffice to say that he agrees with almost the whole of the French medical profession in the belief that it is dangerous to suppress habitual sweating of the feet. "Perhaps, however," remarks Debrousse Latour, "we must here draw a distinction between patients having a good constitution and those predisposed to pulmonary pthisis or phlegmasiæ of the respiratory organs." In support of this judicious reservation, the writer cites the following fact, observed by M. Ollivier in the case of a medical student whom he treated.

M. X., aged twenty-one, had been troubled during two years with partial sweatings of the feet, of an extremely disagreeable character. In other respects he was in good health, and there was nothing abnormal in the action of the organic functions; the appetite was good, and thirst moderate. The local sweating was so profuse as to oblige the sufferer to change his socks several times in the course of the day, and it exhaled a fetid odour, although it was clearly of a watery nature. The skin of the feet was whitish, and, as it were, macerated. M. Ollivier, nevertheless, found no indication against treatment for partial hyperidrosis. He prescribed foot-baths with Barèges water, a preparation of iron, and cold douches. In two months the malady had disappeared, and the cure afterwards continued without any change in the health of the patient. The hygienic treatment of this morbid state in delicate patients consists in avoiding sudden cooling of the feet. The patient should wear stout shoes or boots and woollen stockings, which should be changed frequently. If, in consequence of chill, sudden suppression of perspiration be followed by any unpleasant consequences, the sudoric hypersecretion should be brought on again by the use of very hot foot-baths, and afterwards by wearing woollen socks covered with oiled silk, or even stockings sprinkled with chlorhydrate of ammonia mixed with quicklime, in the proportion of two parts of the latter to one of the former. As a means of diminishing the disagreeableness of excessive and fetid perspiration, the following disinfectants may be used with advantage; the solution of permanganate of potash (0.05 centigramme of permanganate of potash to 250 grammes of water), or the solution of tincture of coal-tar (1 gramme tincture of coal-tar to 250 grammes of water). If the epidermis become softened by maceration, if it fall off, leaving the *rete Malpighii* exposed, and thus render walking difficult and painful, Hebra unhesitatingly recommends that the soles of the feet and the toes should be coated with a mixture of equal proportions of compound diachylon plaster and linseed oil, which should be melted before it is used; the excoriated portions should afterwards be covered with linen. So much as regards palliative treatment; but if the good constitution of the patient give warrant for more active measures, then lighter boots and thread stockings should be ordered, together with lycopodium, charcoal and tannin powders.

M. Gaffard, of Aurillac, recommends allowing some drops of the following liquid to penetrate between the toes:—

Red oxide of lead	1 gramme.
Subacetate of liquor plumbi . . .	29 grammes.

We have already seen how M. Ollivier succeeded in effectively combating sweating of the feet with Barèges water and cold douches. Lotions with aromatic vinegar will also be found useful. Another means consists in spreading

frequently in thin layers on the secreting parts clay softened in water and passed through a sieve. As to medicines given internally, and praised as specifics against general sweatings, such as the *Polyporus officinalis*, and the acetate of lead, MM. Ollivier and Debrousse Latour have arrived at the conviction that they are powerless against perspiration of the feet and other local sweatings.—*London Medical Record*, March 18, 1874.

—

Acne and other Affections of the Skin due to Bromide of Potassium.

Dr. Theodore Veiel, of Cannstadt, contributes a very interesting paper on the above subject to the *Vierteljahreschrift für Dermatologie und Syphilis*, 1874, Erstes Heft. After referring to the literature of the eruptions produced by bromide of potassium, and giving the details of several accurately observed cases of his own among a number examinined in a large epileptical hospital at Stetten, he gives a summary of all the facts known about the disease at the present time.

In the first place, it is impossible to foretell what dose of bromide will give rise to an acne. Its early or late appearance seems to depend entirely on the constitution of the individual. Some persons get it with small doses, some only with large, while with others even the largest doses fail to produce it. The two sexes seem to be about equally predisposed to it, and the same may be said of constitution. Dr. Veiel has observed his form of acne as frequently in robust and florid as in delicate and anæmic persons. He has not been able to decide the question whether it resembles acne vulgaris in attacking principally young persons, as he has not had the opportunity of examining patients in middle life and old age who were taking bromide; and this point seems to have been passed over by others.

A greasy condition of the skin from abundant secretion of sebum appears to favour its occurrence; and if there are comedones, or acne vulgaris, present before the use of the bromide, they become increased by its action; but Veiel has never seen an ordinary acne disappear in a person taking it, as Dr. T. Fox and Dr. Cholmeley have (*Medical Times and Gazette*, Dec. 11, 1869). The efflorescences make their appearance gradually, and not in an acute form, with fever.

The locality selected is more extensive than in acne vulgaris, and there is a decided preference for parts where hairs abound. Thus, besides the face, chest, and shoulders, it attacks the hairy scalp, the eyebrows, and the hairy parts of the thighs and legs. It may even occur over the whole body. It thus resembles tar and iodine acne in its distribution. The colour is not at all characteristic. All gradations of tint, from rose colour to the deepest bluish and brownish-red, have been observed, and a coppery shade is not at all the commonest.

The development of the eruption, and the form of its constituent elements, exactly resembles that of acne vulgaris. Veiel was unable to find a trace of bromine in the contents of some of the pustules in two cases, while it was present in the urine. Although, therefore, he does not deny the possibility of its excretion through the sebaceous follicles, yet he considers that the quantity excreted, since it cannot be detected by chemical examination, is too small to set up inflammation in the follicle, and so give rise to the acne by direct irritation.

The only characteristic feature of acne due to bromide of potassium is its increase and diminution when the dose of the latter is raised or lessened. Bromide acne is distinguished from acne vulgaris by its predilection for the more hairy parts of the body, so that most of the pustules are pierced by a hair. It also occurs without the antecedent existence of comedones. Bromide acne thus resembles tar and iodine acne, but it can be distinguished from them by the chemical examination of the urine, as well as by a characteristic fetor of the breath, which affects all patients with acne due to bromide of potassium. This salt also produces some rather curious affections of the skin apart from acne which are deserving of especial attention from their diagnostic importance.

Thus, Veiel has met with several cases of an eruption on the legs exactly resembling erythema nodosum, which persisted as long as the bromide was continued, and quickly vanished on its being left off.

Another and more frequent eruption consists of a diffuse erythema, always absolutely limited to the lower extremities, and accompanied with fever and a great deal of pain. Dr. Haberle, Superintendent of the Epileptic Hospital at Cannstadt, observed the occurrence of foul ulcerations on the legs of two boys who were taking the bromide. Wheal-like elevations, from the size of a shilling to a florin, appeared on an erythematous base, and were exceedingly tender on pressure. They then assumed a warty aspect, and at last ulcerated. The ulcers showed no sign of healing as long as the bromide was continued, but healed spontaneously when it was omitted, leaving a pigmented scar.

The most interesting phenomenon which Dr. Veiel records in connection with bromide of potassium is the appearance of numerous large warts on the face (cheeks, nose, and eyebrows) and on the legs of a boy of sixteen, soon after he commenced taking it. The warts exactly resembled those which young people get on the backs of their hands. The largest was two centimetres high and a centimetre broad. Veiel believes that a development of warts under similar circumstances has not been before observed.

In conclusion, he points out that there is no direct relation to be traced between the appearance of the skin eruptions and the cessation or less frequent return of the epileptic fits. The beneficial action of the bromide may occur without any eruption whatever.—*Med. Times and Gaz.*, Aug. 8, 1874.

—

On the Treatment of Tetanus Neonatorum with Chloral-hydrate.

Dr. A. von Huttenbrenner (*Jahrbuch für Kinderheilkunde*, vol. vii. p. 30), from observations made by himself and others, has come to the following conclusions. Tetanus of the newly born is not an absolutely mortal disease. It is accompanied by fever or not. Those cases which are very febrile and acute are probably dependent upon a general blood-poisoning, and the fever-free cases are to be looked upon as reflex spasm consequent upon peripheral excitation. The prognosis is more favourable in the non-febrile than in the febrile cases, although even in the latter recovery may occur. Chloral is by no means a specific for tetanus, yet is to be preferred to all other medicaments, and for these reasons: It is a simple hypnotic; it is not accompanied by the disagreeable consequences of morphia, especially the cerebral hyperæmia; it is easily given to children, with a very small risk of cumulative excessive action. The dose is one or two grains dissolved in the mother's breast-milk, obtained for the purpose, and carefully poured through the child's nose. The dose must be repeated with each paroxysm, until the child passes into enduring sleep. The administration by the nose is usually followed by a severe paroxysm.—*London Med. Record*, Feb. 4, 1874.

—

Sarcoma of the Kidney in an Infant.

Dr. Jacobi presented to the New York Obstetrical Society (*Am. Journal of Obstetrics*, Aug. 1874) a tumour taken from a child 19 months old, which died under chloroform in Dr. Krackowizer's office, a few days previously. When the child was seven or eight months old a tumour was noticed in the right side, which increased perceptibly. When Dr. Jacobi first saw the child it was a year old; in the right lumbar region was to be felt a firm elastic tumour as large as one and a half fists, not painful, round, slightly movable, not connected with but adjacent to the liver, more likely belonging to the right kidney; over the tumour there was dull percussion sound; between the liver and the tumour there was a narrow tympanitic line, whereby disease of the liver could be excluded. Dr. Jacobi thought it was carcinoma or cystic disease of the kidney, the two most common kidney affections in young children. The tumour grew larger and larger; hæmaturia confirmed its connection with the kidney. The parents were told that if it continued to enlarge it would be fatal to the child,

and they therefore desired its removal. For the purpose of a more thorough investigation the child was narcotized, Dr. Krackowizer pouring ten drops of chloroform on a handkerchief, and then adding a few drops more. While the finger was in the rectum and the child was straining, Dr. Krackowizer noticed the pallid cyanotic condition of its head and face, respiration ceased at once, and the child was dead, all these phenomena—the cessation of the straining felt by the finger in the rectum, the cyanotic appearance of the head and face, and the cessation of respiration—occurring simultaneously. Death ensued doubtless partly from the chloroform and the encephalic congestion produced by it, partly from the pressure on the abdominal viscera and the impeded respiration caused by the bulky tumour. The tumour as presented is of the size of a large cocoanut, its external portion is evidently composed of the cortical substance of the kidney, the bulk of the mass has a tolerably soft consistence and homogeneous reddish appearance, and shows under the microscope the characteristic features of round-celled sarcoma, besides a large number of giant cells, many of them in the act of division. The weight of the tumour might be three to four pounds.

This is a unique case, at least Dr. Jacobi has not been able to discover a report of a case of sarcoma of the kidney in a child, or adult either, in all the extensive literature at his disposal. It is remarkable that the child presented no signs of constitutional disease whatever, being well nourished, lively, and talkative like most children at that age. Carcinoma of the kidney is not uncommon; Dr. Jacobi mentioned three cases occurring at nine, four, and two months respectively.

Surgery.

On a New Method of Curing Ulcers.

Dr. Nussbaum, of Munich, (*Ærztliches Intelligenzblatt*, No. 14) believes he has discovered a successful mode of dealing with large indolent ulcers. He has treated sixty cases of extensive ulcer of the leg in the following manner with the best results. The patient, having been first anæsthetized, an incision is made completely around the sore from half to three-quarters of an inch from its margin, dividing the skin and superficial structures down to the muscular aponeurosis. Very free hemorrhage results from the wound, and it is necessary to fill the incision throughout its length with lint or charpie, and to apply firm compression; the charpie also acts in preventing immediate union of the incision. On the second day, the interposed lint is removed, and water-dressing is employed until cicatrization is completed. The author states that a surprising change is observed in the ulcer after the first twenty-four hours. The secretion alters from thin foul-smelling pus, very abundant in quantity, into normal inodorous pus, and the quantity becomes but small; the former ulcer diminishes very rapidly in size, and cicatrization, proceeding from the margin towards the centre, soon becomes complete. The diminution in the amount of the secretion, and the other favourable changes that take place, are explained by the fact that the incision divides a large number of engorged vessels, and that the nutritive elements, which were before carried away in the copious secretion, have now time for cell-proliferation and transformation into connective tissue. The author believes that by means of this treatment a more rapid cure is obtained, and that the cicatrix is more elastic and resistant, than after the use of ordinary methods. The plan advocated by the author resembles the method often employed with advantage in indolent ulcers with raised callous edges, of making a number of radiating incisions through them.—*London Med. Record*, April 8, 1874.

Primary Lupus of the Conjunctiva.

In an interesting paper on this subject Dr. H. Sattler, Assistant at Prof. Arlt's Clinique, states that it is very generally known that lupus may extend from the neighbouring parts of the face to the eyelids, and ultimately to the conjunctiva; and that owing to this disease large portions of the conjunctiva and of the lids may be destroyed, so that symblepharon posterior, lagophthalmos, ectropion, and their consequences, are produced. Upon the conjunctiva, which is in these cases always red and swollen, lupus appears as a coarsely granular and firm growth, bleeding upon the slightest provocation. It may extend over a more or less extensive part of the tarsal conjunctiva. It is sometimes ulcerated in places, and ultimately it passes over into a smooth, tendon-like and contracted cicatricial mass, by the shrinking of which irregular shortening of the lid often takes place, with inversion of its free margin, etc. The appearance of the disease is varied by the fact, that while cicatrices are found in one part, the disease itself may be actively progressing in an adjacent one. In severe cases the cornea, too, suffers, in the form of a thick pannus, or occasionally in the form of ulcers. The pannus is probably to be regarded rather as a secondary condition due to the friction of the rough conjunctiva, than as an extension of the neoplastic growth itself. A great number of such cases have come under my observation at the Clinique of Prof. Hebra.

Primary lupus of the tarsal conjunctiva, however, is not so well known as the above, and is a very rare disease. A case which occurred in our extern department, which I was enabled to observe for a lengthened time, was most instructive, inasmuch as the diagnosis of primary lupus of the tarsal conjunctiva, made in an early stage of the case, was confirmed four months afterwards by the appearance of lupus at the end of the nose.

The case was that of a girl, 13 years old, of a pale complexion, and imperfect development for her age. The margin of each lid of the right eye was thickened, and the ciliæ were irregular. Rather external to the centre of the free margin of the upper lid a slight depression was observable. The palpebral conjunctiva seemed considerably thickened and velvety, and in the external half of the conjunctiva of the upper lid there was an extensive growth, composed of a number of dark-red and somewhat flattened warty protuberances. This growth was separated from the remaining conjunctiva by a cicatricial band stretching from the above-mentioned depression to the retro-tarsal fold of the conjunctiva. In the lower lid there was a cicatrix extending from the margin to the reflected fold, and to the inside of this there were three pale-coloured tubercles lying close to each other, which were hard to the touch. The cornea was very opaque in its upper half, and a few fine vessels ramified over its surface.

The treatment consisted in cauterization of the lupoid growth with solid nitrate of silver, the cauterized part being afterwards carefully washed with a solution of common salt. The applications were made every second day, or at longer intervals, according as appeared desirable. Where the pannus was very thick, it, too, was touched with the crayon of nitrate of silver. Later on, and when the pannus was somewhat lessened, I found the yellow oxide of mercury ointment of great benefit, applied upon those days when the cauterization was omitted. In some cases internal treatment seemed advantageous. The girl, whose case I have mentioned, derived much benefit from a visit of two months to a watering place called Hall, in Upper Austria, where the waters contain iodine. The local treatment, however, was not neglected at the same time.—*Irish Hospital Gaz.*, Feb. 16, 1874.

—

On Deposits of Metals in the Cornea and their Treatment by Chemical Reagents.

Dr. Herkel complains (*Journal de Thérapeutique*, April 25, 1874) that our best authors have little or nothing to say in regard to the treatment of these deposits, but, as the result of his own experience and experiments, he feels

strongly that much benefit may be derived from a prolonged application of reagents. Thus, for the opacities caused by the salts of lead, he recommends the use of solutions of acetate of soda; for those of silver, the hyposulphite of soda. The salts of potassium would answer the same purpose; and the resinous deposits will yield to the frequent application of alcohol.—*London Med. Record*, Aug. 26, 1874.

—

Cystoid Degeneration of the Iris.

M. Wecker (*Annales d'Oculistique*, July and August, 1873) believes, that, quite apart from the cases of extreme anterior or posterior synechia which cause cystoid degeneration of the iris, any folding of the iris, such as occurs in partial or complete luxation of the lens, may do so. He records in this paper several instances of its occurrence.

Case I. A man, aged thirty, four weeks previously had received a severe blow upon the right eye from the branch of a tree; there was no wound of the eye but absolute blindness and excessive tenderness to the touch. The crystalline lens was dislocated into the vitreous humour, but its exact position could not be determined. The iris was tremulous, of a greenish hue, and appeared to be drawn backwards. In six weeks all symptoms of irritation had disappeared, and the man left the hospital. In six months' time he again presented himself. The front of the globe appeared curiously pointed, the cornea retained its transparency, and behind it there appeared five grayish transparent vesicles, separated from each other by deep furrows, three of them as large as peas, the others no larger than millet-seeds. In the centre, in the situation of the pupil, was a grayish opaque mass of tissue by oblique light it could be seen that the contents of the vesicles were transparent. M. Wecker considers that the retraction of the vitreous humour, altered in its structure, had encouraged a folding backwards of the iris, and the subsequent agglutination of its surfaces to each other, and asks in what does such a case differ from those known as cysts of the iris.

Case II. At the time of the seige of Paris, a woman, aged twenty, presented herself, who on the preceding day had received a blow from a spent bullet on the left lower eyelid. There was no wound of the eyelid or eyeball, but the latter had lost all perception of light, was very painful and much injected; blood in the anterior chamber prevented any examination of its interior. The removal of this by absorption at the end of three weeks made it evident that, as in the previous case, the crystalline had been displaced into the vitreous humour, and the iris was tremulous and drawn backwards. Some months later the eye had become somewhat atrophied and was no longer irritable; the front of the eye was somewhat pointed, the cornea was transparent, and the iris presented the appearance of being converted into four vesicles as large as a pea, similar in every way to those previously described.

Case III. A man had received a blow on the left eye with a fist. For some weeks the eye remained blind and painful. At the end of two months the pupillary space had become clear, and showed a dislocation of the lens into the vitreous humour; the iris was tremulous and much torn.

Eight months afterwards the eye had undergone the same partial atrophy and change in shape before mentioned. There were five gray and transparent vesicles developed in the iris, three of them as large as peas and filling the anterior chamber. The eye being perfectly quiet, no treatment was adopted.

From these observations it is clear that as a result of a folding of the borders of the iris and the subsequent agglutination of these folds, diverticula are formed, which, by becoming distended, may give rise to the condition of cystic degeneration.

In conclusion, M. Wecker believes that iris-cysts may develop—

1. As a consequence of the iris becoming entangled in a wound of the cornea, the aqueous humour being retained.

2. As a result of the formation of the posterior synechia.

3. In consequence of being drawn backwards and thrown into folds, the entire iris may undergo this kind of degeneration.—*London Med. Record*, March 25, 1874.

On Repositio Ciliorum for Trichiasis.

This operation, recommended by Celsus, has again been brought to the attention of the profession by Dr. Argyll Robertson, in the *Edinburgh Medical Journal* of May. Few text-books make any mention of this simple method; and its reintroduction, about twelve years since, is due to Dr. Snellen, of Utrecht. The following is the method of operating: A very fine curved needle has the two extremities of a very fine waxed silk-ligature (or hair, as Celsus directs) passed through its eye. The needle, being firmly grasped by suitable forceps, is then passed through a narrow fold of skin, at the very margin of the lid, close to one of the inverted eyelashes. The point of introduction should be external to the point of emergence of the eyelash, but as close to it as possible; and the needle should be brought out after passing through about three-fourths of a line or a line under the skin. The needle and ligature should be drawn through until a small loop alone remains, when, by means of a fine pair of forceps, the eyelash is passed through the loop. Traction is then made on the ligature, and the loop with the entangled eyelash is drawn through the tunnel in the skin.—*London Medical Record*, July 1, 1874.

—

On Trephining the Mastoid Process.

In a treatise on the above subject, M. Brochin (*L'Union Médicale*, April, 1874), who has witnessed several operations followed by remarkable success, gives a history of the operation:—

In France it was first practised by J. L. Petit for caries of the petrous portion of the temporal bone. The proceeding has been absolutely condemned by many specialists, such as Itard and Bonnafont; but in the opinion of the author, while it is properly abandoned in cases of chronic deafness, it is indicated, 1. In caries of the petrous portion of the bone; 2. In abscess of the mastoid process; 3. In cases where suppuration in the middle ear spreads to the mastoid cells, either by the progress of the malady or through suppression of the discharge from the ear.

This opinion is not theoretical, but is based upon the observation of fourteen cases in hospital and private practice reported by M. Brochin, of which only one was fatal, and that from an intercurrent disease.

Mr. William Allington has had two cases of suppuration in the mastoid cells, one following a blow, and the other in a child of strumous habit, in which incisions followed by the use of the gouge gave exit to pus, and rapid recovery ensued.—*London Medical Record*, May 17, 1874.

—

Cases of so-called Ichthyosis Linguæ.

Mr. W. Fairlie Clarke, reported to the Royal Medical and Chirurgical Society (*Lancet*, March 14, 1874) nine cases of ichthyosis linguæ:—

The term "ichthyosis" was first applied to a morbid condition of the tongue by Mr. Hulke in 1864. In its earlier stages the disease has something in common with warts and corns, and with "papillary tumours of the gum." But it is distinguished both pathologically and clinically from these affections in two ways. (1) It attacks only the tongue and the inside of the mouth; no other mucous membrane is subject to such an affection. (2) It slowly spreads, but gives only slight inconvenience and no pain. In this state it may remain many years, but sooner or later it assumes the characters of epithelial cancer.

Ichthyosis linguæ manifests itself in an overgrowth of the papillary and epithelial elements of the mucous membrane, and it is the dorsum of the tongue which is affected in the majority of instances. In some cases the enlarged papillæ may be seen sprouting up in small groups, in others the whole of the affected surface is smooth, hard, and almost cartilaginous. It presents either a silvery or a snow-white appearance, quite different from any fur which ordinarily covers the tongue. When the disease has once manifested itself it is very persistent. Though it sometimes responds a little to treatment, and

though it varies slightly, it never wholly leaves a spot which it has once attacked.

The essential nature of the disease appears to be that of a chronic inflammation, accompanied by an overgrowth of the papillæ and a loss of power to throw off the effete epithelium. The irritation which gives rise to this inflammation sometimes acts on the periphery of the nerves, and sometimes it is situated between the periphery and the centre. It would appear that any persistent or oft-repeated irritation of the lingual branches of the fifth pair is capable of causing the disease in persons who have a strong inborn tendency to the development of warty growths under slight causes.

If a portion of the ichthyotic coating be examined under the microscope, some increase in the thickness of the epithelial layer is seen, some enlargement also of the papillæ, and a great development of the rete mucosum. Around the bases of the papillæ, and in the submucous and muscular tissues, there is a very abundant nuclear cell-growth. There is also a notable increase in the number and size of the bloodvessels in all parts. When the disease reaches the stage of epithelial cancer, the most striking feature is the development of the rete. It increases enormously at the expense of the papillæ, reducing them in many places to mere threads, and dipping down between them in the form of large club-shaped processes. Towards the termination of some of these processes the cells may be seen to have assumed a circular arrangement, forming the laminated capsules, or nests of cells, that are so characteristic of epithelioma. These points are illustrated by microscopial sections and drawings.

Nine cases of ichthyosis linguæ are related at length, some of which were under the author's own care, while others have been communicated by friends or gleaned from publications. In an appendix eight more cases are briefly noticed. Several of the cases are illustrated by drawings.

The paper concludes with some general remarks upon the disease and its treatment. 1. It is much more common in men than in women. Out of sixteen cases (one being set aside for special reasons) only one was a female. 2. It never occurs before puberty. It is an affection of early manhood and of middle age. 3. Though a venereal ulceration may occasionally be its starting-point, there is no reason to think that it is always associated with syphilis. On the contrary, it is clearly distinguished from the manifestations of that disease. 4. With regard to treatment: If the disease presents itself in a very early stage, it should be promptly and thoroughly excised. On the other hand, when it has become epitheliomatous, no time should be lost in performing an operation. But during the whole middle period the best thing that can be done for the patient is to study his general health. If any local measures are used they should be of an unirritating kind. If any jagged teeth are present they should be removed. At the same time the patient should be advised to guard his tongue against all sources of irritation, and to pay particular attention to his digestion. Under this treatment the ichthyotic coating often alters for the better, though it is never altogether removed.

—

Galvano-Cautery in Tracheotomy.

M. Krishaber reports (*Le Mouvement Médical*, January 10, 1874) two cases of tracheotomy. The first was in a man æt. forty-five, affected with vegetations seated in the trachea and the subglottic portion of the larynx, and occupying almost entirely the superior part of the respiratory canal. The operation was performed with the galvanic knife, and the sections were made slowly and carefully; all flow of blood ceased at once on touching with the knife the artery which produced it, and this was also the case in a profuse secondary hemorrhage, which took place some hours after the operation.

The other patient was a man, æt. sixty-three, with a laryngeal tumour, which was causing more and more intense aphonia and dyspnœa, and thus rendered asphyxia imminent and tracheotomy inevitable. The operation was conducted in the same manner, but the hemorrhage necessitated the application of a ligature, and the tracheal opening had to be made with a bistoury. M. Krishaber,

while admitting the hæmostatic power of the galvanic knife, believes that the ligature and bistoury are still preferable, as offering more security against secondary hemorrhage.—*Phila. Med. Times*, March 28, 1874.

—

Swallowing of a Shawl-pin—Passage per Anum.

Dr. S. Caro exhibited to the New York Pathological Society (*Med. Record*, April 15; 1874), a shawl-pin (two inches long, with a globular glass head) which had been accidentally swallowed by a child twenty months old. Immediately after the accident the first physician at hand, who happened to be a homœopath, was called in, and he at once administered a large dose of castor oil. Dr. Caro, who was the regular family attendant, was then sent for and came armed with the œsophageal bristle-parachute. On examination of the throat nothing could be seen of the pin, and on introducing the instrument for the sake of exploration, the head of the pin was touched high up in the œsophagus and then slipped down into the stomach. Under the circumstances, considering it highly important that the peristaltic action of the intestines should be controlled, three drops of tinc. opii were administered every three or four hours until the desired result was obtained. As much solid food was given as the child would take. Two days after the accident the bowels moved, when the pin was passed, head downwards, without the least trouble.

Dr. J. C. Peters referred to a similar case which had occurred to him in which a shawl-pin of the same dimensions was passed in four days. In the mean time the patient was fed principally on mush.

Dr. Briddon remarked that he once removed from the neighbourhood of the hip-joint a needle which had been swallowed seven years before. He also cited the curious circumstance of a child, thirteen months old, who swallowed a shawl-pin, one and a half inches long, the face or ornament of which was a miniature velocipede and rider. The patient was sent to him by Dr. Aigner. On examining the fauces the foreign body was felt firmly impacted across the glottis. A forceps was introduced and one wheel of the velocipede came away, and it was only after a great deal of difficulty that the entire foreign body was extracted. Notwithstanding the position of the obstruction, there was no difficulty in breathing.

Dr. Knapp believed that so long as a pin had a head there would be no difficulty in its passing through the intestinal canal. The weight of the head was generally sufficient to determine its direction in the long axis of the gut, and if this were not the case and the pin actually penetrated the side of the canal, the head would prevent its going further and the peristaltic action would eventually get the foreign body in the best relative position for passage, viz. with the head downwards.

—

On Cysts of the Posterior Wall of the Bladder in Man.

In the *Anzeiger der k.k. Gesellschaft der Aertze in Wien*, January, 1874, Dr. Englisch has a communication on these tumours. If a sufficient number of preparations be examined, there are not unfrequently found, in the space between the two vasa deferentia, and less often on the vesiculæ seminales, cysts of various sizes. He describes them as consisting of four different kinds.

The first class of cysts corresponds with the mesial line, and lies in the musculo-fibrous membrane, which binds together the vasa deferentia.

The second kind lies more to the side, near the vas deferens, and is connected with it by means of a process of connective tissue.

The third form lies partially in the prostate, and corresponds with an enlarged sinus pocularis, if its orifice be closed.

A fourth form is connected with the vesicula seminalis, and has no attachment to the vas deferens.

These cysts do not only exist in adults, but are also met with in children, and it has been clearly shown that the first three kinds exist in newly born infants, and become developed later on.

It is probable that the cyst lying in the middle line corresponds with the remains of the Müllerian canals, and that those of the second form proceed from the development of the orifice of the vas deferens, or represent the remains of the cul-de-sac of the Wolffian body.

The third form is developed when the cul-de-sac of the sinus pocularis, which commences at the colliculus, extends far backwards, and becomes distended.

The fourth species is found in connection with the results of inflammation of the vesiculæ seminales, so that the closure of a sinus is peculiarly a result of an inflammatory process.

So long as the cysts are small, they cause no particular annoyance, although they may, as in instances proved, distend the recto-vesical pouch and cause retention of urine.—*London Med. Record*, April 22, 1874.

—

Spina Bifida cured by Injection.

J. Ross Watt, M.B., Consulting Surgeon to the Fever Hospital, Ayr, N.B., reports (*British Med. Journ.*, Jan. 31, 1874) the case of E. G., aged three years, who had a spina bifida tumour, which was wholly covered by true skin, stood out with a prominence of nearly four inches, and measured thirteen and a half in circumference. It was very sensitive to the touch, became tense when the child cried, and palpation discovered a perfectly fluid condition of its contents. It was slightly pendulous when the child was erect, and gave her a ludicrous, although at present rather fashionable, appearance when dressed—the projection at her age being unlooked for.

Her mother stated that it was like a walnut at birth, and had increased gradually; that she walked at two years; was now active, although not firm on her legs, and easily knocked over; that she enjoyed excellent health, but was constantly annoyed by escapes from the bladder and rectum; and that she had always been advised to let it alone.

The treatment of the case was by injection of solution of ten grains of iodine and thirty of iodide of potassium, in an ounce of glycerine; and was briefly this. Two tentative tappings with a medium canula, of respectively twelve and ten ounces of clear fluid, were made, with an interval of eight days, both being followed by an irritable and feverish condition of the child, and gradual refilling of the tumour to its original size. Ten days afterwards, another ten fluidounces were removed, and half a drachm of the solution injected. The opening was instantly closed on each occasion by a layer of lint soaked with flexile collodion. This last operation in a few days made the tumour tender, and caused the child to be feverish, restless, and extremely excitable, with decrease of appetite, milk and soups alone being taken. Ten days after this first injection, the tumour was very slightly less, and eight ounces were then removed, followed by injection of a similar quantity of the solution. This gave rise to even more severe irritative symptoms of the nature described; but a fortnight later showed the tumour only one-third of its original size, although still sensitive and painful when interfered with. At that time, about five ounces were removed, followed by a third injection of half a drachm; this caused cessation of any further formation of fluid, and a gradual absorption began, which, at the end of twelve weeks from the first interference, presented a roughened, darkened, and thickened condition of skin, quite normally sensitive to the prick of a needle, replacing the tumour and closing the spinal aperture with an apparently gelatinous mass.

The treatment extended over nearly seven weeks, and the measured fluid removed amounted to forty-six ounces—a larger quantity, to my knowledge, than from any previously successful case. Half a drachm of the solution was deemed sufficient for each injection, owing to the large extent of sensitive surface to be dealt with; and the irritative symptoms developing therefrom quite justified the precaution taken.

This, Mr. Watt's second case, with Dr. Morton's, makes four successes, all that have been so treated; and, without appearing too confident of further success, the result is very hopeful and gratifying to the introducer of this method of treatment.

The patient is now very active on her feet (amusing herself, and standing as much consequent fatigue daily as her healthy companions), growing rapidly, and the sphincters are now almost wholly under control; cold sea-water baths being persevered with.

—

Blood Cyst of the Hand.

Mr. T. Harrington Haward read, before the Clinical Society of London (*Med. Times and Gaz.*, April 11, 1874), notes of a case of this. The patient was a man, aged forty-three, married, and in good health, and with a good family history. For three years he had suffered from tingling and pain in the right forefinger, and for two years had had a gradually increasing tumour on the ball of the right thumb. This was punctured, and only blood escaped. He was admitted into St. George's Hospital, and the tumour removed by Mr. H. Lee, the limb being bandaged after Esmarch's method. The tumour was examined by Mr. Haward, who found it to be a cyst with thick walls of gelatinous appearance, containing in its interior smaller masses of material resembling that of the cyst-wall, and some old blood-clot. Microscopically, the cyst-wall and the contained masses were found to be composed of spindle-shaped-cells with oval nuclei, closely placed in a very scanty intercellular material. The clinical histories of cases of blood-cyst were shown to exhibit very various characters, some cases doing well and others exhibiting decidedly malignant characters, this difference depending upon the character of the cyst-wall. The different kinds of blood-cyst having been spoken of, the author drew the practical conclusion that, in all such cases, the growth should be very completely removed, and, even then, that a guarded prognosis should be given.

Mr. P. Hewitt had a similar case. A lady had a large fluctuating tumour in the palm of the hand. He thought it was a bursal swelling, and opened it. Bloody fluid appeared, and in a few days fungating growths, which bled much, began to sprout from the edges. He amputated the forearm. Ultimately she died of phthisis the year after, without any return. Another lady had a dark-looking cyst in her breast for eighteen years. She had punctured it from time to time, and let out fluid. She got tired of this, and had it removed. The breast was seen to consist of a single large cyst. She remained well for years, but died of cancer in the axilla. There was no malignity in the cyst.

Mr. T. Smith mentioned the case of a boy who fell and struck his calf. He was seen with a collection of blood in the calf. This was removed, but it accumulated again and again, and finally turned cancerous. The limb was amputated, but the child died of internal cancer.

—

Amputation of Penis for Epithelioma.

Dr. Watson exhibited, at a meeting of the Medico-Chirurgical Society of Edinburgh (*Edinburgh Med. and Surg. Journ.*, Feb. 1874), a penis which he had removed from an elderly patient on account of epithelioma commencing in the frenum. The example was interesting, as bearing upon the influence of congenital phimosis in the production of such disease. Here the phimosis followed upon the thickening of the prepuce, and did not precede the development of the disease. Dr. Watson amputated the organ in a somewhat novel manner, which he introduced into operative practice some years since. This procedure consists in amputating by direct section, then dissecting up the corpus spongiosum urethræ and turning it out through a slit in the cutaneous tissues clothing the under surface of the limb of the penis. The bleeding was staunched by transfixing the corpora cavernosa by a double catgut ligature, which being divided, each end was tied so as to include each half.

On Amputation in the Continuity of the First and Fifth Metatarsal Bones.

Dr. Desprès, Surgeon to the Hôpital Cochin, points out (*Bulletin de Thérapeutique*, Jan. 30, 1874) that, for lesions of the metatarso-phalangeal joints, disarticulation of the phalanx is not sufficient, and that most surgeons are of opinion that the head of the metatarsal bone should be removed at the same time; when the whole metatarsal bone is removed, the tarso-metatarsal joints are opened, which is a disadvantage. The many operative proceedings recommended have for their object to remove the cicatrix from the influence of subsequent pressure, or at least to avoid a plantar cicatrix. Notwithstanding the precautions taken, the cicatrix is found sometimes on the side of the foot where it is exposed to pressure, or adherent to the end of the bone, where it is sure to be painful. The author adopts a method which he has seen Richard employ, and calls it a racquet-shaped incision with external flap. He adopted it in four cases recently with good results. An incision is made commencing near the prominence corresponding to the posterior extremity of the metatarsal bone, easily recognized by a distinct elevation under the skin; the cut is made to pass obliquely upon the dorsum of the foot until it comes to the base of the toe by an almost semicircular incision, with the convexity turned to the middle line of the foot; the incision is then continued around the base of the toe and so as to return to the first incision. The flap thus formed is dissected from the bone; that done, the metatarsal bone is encircled by an incision with the bistoury, in order to separate the soft parts. Regard being had to the age of the patient and the resistance of the bone, either Liston's forceps or a handsaw is used; in the latter case, a retractor must be employed to protect the soft parts.

The operation is stated to be easy, and the end of the divided bone does not approach the cicatrix. An account of four cases is then given, the subject being in each case able to walk afterwards in an ordinary shoe without any difficulty.—*London Med. Record*, April 8, 1874.

—

Exsection of the Hip-Joint.

Dr. Lewis A. Sayre, in a paper recently read before the New York Medical Library and Journal Association (*Medical Record*, Aug. 15, 1874), expressed his conviction that in the vast majority of cases, hip-joint disease has a traumatic origin. The child receives a strain, a blow, a concussion, some injury which causes pressure upon the bloodvessels of the head of the femur or acetabulum, etc. etc.

It is something of that order which excites inflammatory action that goes on to the production of effects which we see developed during the progress of the disease. It seems to him it is just here that there has been this fatal error with regard to the propriety of the operation; namely, the almost universal belief that the disease is essentially constitutional in its nature. Taking this view of the question, the treatment of these cases by adopting constitutional measures *alone*, administering remedies for the purpose of rectifying a local injury, is, in his opinion, entirely wrong, and the results obtained by that form of treatment prove it to be so.

He maintains that if the disease is recognized early, it can by appropriate treatment, such as extension and counter-extension, properly applied and continued, perhaps assisted by some form of moderate counter-irritation, perhaps by the application of leeches, be brought to a favourable termination without any operation at all. Those forms of counter-irritation which are sometimes resorted to for the purpose of keeping up a continuous discharge, such as setons, etc., he does not approve of. The actual cautery is a most excellent and serviceable form of counter-irritation, and the form which he usually employs unless there are some special objections to its use.

When, however, the disease has so far advanced that the case falls under any of the indications which are to be enumerated, then he regards the operation not only as justifiable, but that it is the duty of the surgeon to perform it if possible.

Before adopting any plan of treatment, however, it is essential to arrive at a correct diagnosis. For this end it is absolutely necessary during the examination that the patient be placed upon the back, upon a hard table, with the spinous processes touching the table. Placed in this position, if the pelvis, trunk, and extremities are in a normal relation to each other, two lines, one drawn from the centre of the sternum to the centre of the symphysis pubis, and the other drawn from the anterior superior spinous process of one ilium to that of the other, will cross each other at right angles, and the extremities can be brought into a position of parallelism with each other, and the popliteal spaces will touch the table.

In the first stage of the disease, the limb is slightly abducted, slightly flexed, the foot is rotated outwards, and the toes are slightly everted.

In the second stage, the same symptoms are present, except that they are considerably increased. There is increased flexion, abduction, eversion of the toes, and rotation of the foot outwards. These symptoms are present after suppuration or extensive effusion has occurred within the joint, and are due to the fact that the pressure upon the inside of the capsule has caused it to unfold itself, as it were, compelling the limb to assume this peculiar position to accommodate the increased amount of fluid within the joint. This is the most painful period of the disease, and continues so until rupture of the capsule occurs.

When this latter takes place, the real deformity incident to the third stage of the disease begins to be developed. In this stage the limb is adducted, the foot is rotated inwards, the toes are inverted, and the limb becomes shorter. It is taught that luxation occurs in this stage; but Dr. S. has seen only a single instance among all the cases upon which he has operated, in which luxation has been present. The head of the bone is *diminished* in size by the process of absorption, and the acetabulum is *increased* in size, which permits of considerable displacement. It is also true that when the acetabulum becomes very much absorbed, the capsule and the periosteum become displaced, and the head of the bone is invested with its capsule in a new position upon the ilium. These changes may take place through the process of absorption, but as a rule there is no proper luxation.

When the disease has passed into the third stage, the case must be cured, if cured at all, either by the operation of exsection, or by nature's method.

If nature is left to cure the case without assistance, excessive suppuration must occur, and frequently patients die from the exhaustion incident to it.

The deformity which remains when nature effects a cure, is one with which all are familiar.

The indications for the performance of the operation are:—

1. If there is denuded bone present, the operation is justifiable.

2. If the discharge is excessive, and is increasing, the operation is justifiable.

If the discharge is diminishing, and the patient is improving in health, the case may perhaps be left to get well by nature's method.

3. If there is danger of perforation of the ilium, the operation is justifiable.

This point can be settled by rectal examination. A spongy feel or sense of fluctuation can be detected as the finger passes over the plane of the ischium if perforation is threatened. In such cases it is better to operate than to run the risk of having perforation occur.

The operation is to be performed as follows: Anæsthetize, and place the patient upon the well side. Carry the point of a strong knife home to the bone at a point midway between the anterior superior spinous process of the ilium and the top of the trochanter major. Holding the knife firmly upon the bone, carry it through the tissues in a slightly curved direction, to a point midway between the centre of the trochanter and its posterior border, and then continue the incision from two to three inches farther down upon the thigh, curving it slightly forward. Cut through the periosteum freely. Make a second incision through the periosteum at right angles with the first, extending as far around the bone as can be conveniently reached, at a point nearly opposite the lesser trochanter. Introduce the elevator, and peel up the periosteum, until it is reflected, to the digital fossa, at which point it will be necessary to cut the muscular attachments. Continue the reflection of

the periosteum until the bone can be turned out sufficiently far to permit the introduction of a narrow saw (a saw is always to be used), and then remove the bone below the trochanter major. More of the bone must be removed if found diseased below this point. It is better to remove the trochanter major even though it be not diseased, because, if left, it will obstruct free discharge of pus. If the disease has been of long standing, and nature has formed a large amount of involucrum, it may be necessary to first saw the bone off before it can be turned out.

It has happened to Dr. S. in two cases that the acetabulum had been perforated, and a portion of the femur had become engaged in the opening. Fixed in this manner, the acetabulum offered so much resistance that, in both instances, the femur was fractured by the force used for luxating the bone.

All dead bone is next to be carefully removed from the acetabulum, taking great care not to injure the internal periosteum.

Wash out the wound, pour it full of Peruvian balsam, tampon with oakum in such a manner as to permit a perfectly free discharge from the bottom of the acetabulum, apply one or two sutures, and then dress the child in the *wire-cuirass*, which is a modification of Brower's wire-breeches. Dr. S. deprecates tamponing the wound with cotton, for he feels certain that one of his cases was killed by accidentally having it used.

The application of an India-rubber bed to the cuirass adds very much to the comfort of the patient. The well limb is to be dressed first, and made a solid column upon which to make counter-extension for the diseased limb.

Place the anus of the child in proper relation with the opening in the cuirass. Extend the well limb, and fasten the foot of the foot-piece by means of a roller bandage. Place a moderate splint, such as a folded newspaper or piece of soft pasteboard, over the knee to prevent flexion. Carefully secure the whole with the remainder of the roller bandage, which is to pass over the entire limb and perineum. Apply the bandage with great care, in order to avoid wrinkles and undue pressure. The requisite amount of extension is made by means of the thumb-screws attached to the foot-piece.

The foot of the diseased limb is to be fastened to the foot-piece by means of broad strips of adhesive plaster, which extend along the sides of the leg and reach *above* the knee, in order that traction shall *not* be made upon the lateral ligament of the knee-joint, but upon the thigh. The plaster is secured to the limb by means of a roller bandage so applied that all wrinkles in the plaster shall be avoided. Extension to the diseased limb must be *gradually* applied.

The tissues about the wound should be firmly supported with a bandage for the purpose of preventing infiltration of pus. The first dressing of the wound may be made at the end of forty-eight hours. Subsequently the dressing may be repeated according to the amount of discharge, etc. In the subsequent dressings it is important to keep the periosteum well stuffed with oakum in order to permit the deposit of sufficient bony material to finally bear the weight of the body. The well limb must be undressed at least once a week, free motion restored to the joints by passive movements, and then replaced in the cuirass.

If the wire-cuirass cannot be easily obtained, a long Haggerdon's splint may be employed, with the modification of adding a foot-board.

It is possible to treat a case upon a firm bed, making extension by means of a weight and pulley. This, however, necessitates continued confinement of the patient, which is undesirable, if it can be avoided.

The children are kept in the wire-cuirass, as a general rule, about six weeks. At the end of this time the short splint which he has devised is applied, and the child permitted to go about without the assistance of a crutch.

If the thigh is so short that this splint cannot be advantageously applied, Taylor's long splint may be employed, or a modification of that splint, by which a movement of abduction is secured, and rotation outward at the same time, by means of screws adjusted to the joint in the instrument opposite the hip-joint.

Since Dr. S.'s first operation he has operated forty-four times. The results which have been obtained have been obtained upon cases taken indiscriminately. The percentage of mortality is so small, he believes that the operation is not

only *justifiable*, but, if the cases could be selected, and the operation performed at the most proper time, there is much better prospect of obtaining good results.

Analysis of 44 cases of exsection of the hip-joint. Males 28, females 16.

The acetabulum was perforated in 30 cases.

The disease could be traced to traumatic causes in 36 cases.

TABLE.

Age of patient.	No of cases.	Died before wound healed.	Recovered.
Under 5 years	8	1	7
Between 5 and 10 years . .	19	2	17
" 10 " 15 " . .	13	5	8
" 15 " 20 " . .	2	2	
" 20 " 30 " . .	1	1	
" 30 " 50 " . .	1		1
Total	44	11	33

Of the 33 cases which recovered, all are now living except 2.

One of these died of marasmus and cholera infantum six months after the wound had healed, and two years and seventy days after the operation.

The other died of phthisis two years after the operation. The wound had been healed more than a year.

The following is a record:—

Of the 11 cases which died before the wound healed—under five years of age: one died of dysentery two weeks after the operation.

Between five and ten years: one died of exhaustion in two weeks, and one died of exhaustion on the twenty-fourth day after the operation.

Between ten and fifteen years: one died of exhaustion on the eighth day; one died from tetanus on the fifteenth day; one died on the fourteenth day of double pneumonia; one died at the end of nine months of exhaustion, six inches of the shaft of the femur having been removed at a second operation; and one died at the end of seventeen months of dysentery. In this case, at the time of death there was limited motion, and only a very slight discharge from two sinuses at the back of the thigh.

Between fifteen and twenty years: one died on the fortieth day after the operation, of sunstroke. Wound very nearly healed. One died at the end of three weeks, of amyloid degeneration of the kidneys.

Between twenty and thirty years: one died at the end of eleven months, from fatty degeneration of the liver and kidneys. Wound nearly healed. Three inches of new bone had formed.

The cases now under observation, upon which the operation has been performed, are certain to recover, with a single exception.

In the case in which a second operation was performed and six inches of the femur removed, my present opinion is, that amputation at the hip-joint would have been the more favourable operation.[1]

On Spontaneous Fractures and Dislocations in Ataxic Patients.

Under this title M. Bergeron (*Le Progrès Medical*) has just published an interesting article which is based on a fact that M. Richet mentioned in one of his last clinical lectures. The readers of the *Progrès Medical* are already acquainted with the subject, for they have had the first communication made by M. Charcot to the Société Anatomique.

Dr. Charcot's case, which gave rise to discussion in which several members

---

[1] Since the reading of the paper, the forty-third case, the one referred to above, has died at the end of the eleventh week after the operation. The specimen was presented at the New York Pathological Society, April 8, 1874. The patient was ten years of age. The acetabulum had become covered with new material, and four inches of dead bone at the upper extremity of the femur had been surrounded by a heavy involucrum, which had been rounded off at its upper extremity so as to fit the acetabulum in the most perfect manner.

of the Society joined, has been since reproduced in all its details in the *Archives de Physiologie* (Jan. 1874), and has besides been inserted by M. Forestier in his Inaugural Thesis (*Thèses de Paris*, 1874). As in cases already mentioned, in the one related by M. Richet, the fracture occurred spontaneously without any traumatic cause, and the union was rapid. On the patient dying M. Richet found an ostitis, which had thinned the bone, and to which he attributed the occurrence of the lesion. This ostitis, which would itself seem to be dependent on the morbid changes in the spinal cord, and at the same time the cause of these spontaneous fractures, would also constitute a condition eminently favourable to a rapid reunion. It is possible that this explanation may be correct. However we ought to receive it with some reservation, and for these reasons: 1. Because in Dr. Charcot's first patient, one of the fractures—that of the left thigh—did not unite; and 2. Because in old men in which an analogous ostitis occurs, as M. Richet remarks, the formation of a callus takes place very slowly, whenever it does take place.

However unimportant these explanations may be, the fact recorded is nevertheless extremely instructive. It remains to be studied, and for the future to decide.

M. A. Bergeron concludes his article with some remarks on spontaneous dislocations in patients suffering from locomotor ataxy. This is a new subject in surgery, but it dates back six years, when M. Charcot made known, for the first time, the occasional existence of this complication with sclerosis of the posterior columns of the spinal cord. A patient suffering from locomotor ataxy, says M. Bergeron, was admitted under the care of M. Béhier. Without any exertion or effort, a dislocation of the shoulder-joint ensued. The patient died of the ataxy, and at the necropsy there was found, not a pure and simple dislocation, but a disruption of the head of the humerus, which, thus deprived of its ligaments and muscles of attachment, had become displaced, and simulated a dislocation.—*London Med. Record*, July 1, 1874.

—

On Dislocation of the Thumb at the Metacarpo-phalangeal Articulation.

Dr. Langer (*Allgemeine Wiener Medizinische Zeitung*, March 3, 1874) describes the results of some experiments on this dislocation. He induced the luxation on the dead body, and, after having frozen the parts and sawn them through, made the following observations. He distinguishes an incomplete and a complete luxation; the latter is when the base of the first phalanx is dragged up upon the head of the metacarpal bone. The obstacle to reduction is due to two factors, ligaments and muscles. His remarks refer to this form of the accident. Complete rupture of the loose capsular ligament invariably occurs, and of both lateral ligaments obliquely.

Dupuytren and Günther advised the subcutaneous section of the latter, since they form, with the volar part of the capsule and the sesamoid bones, an obstructing ring: this holds good for the incomplete, never in the complete form, which, as Dr. Langer states, occasions complete rupture of the capsular and lateral ligaments.

Further obstacles to reduction moreover exist in that, by the upward dragging of the phalanx, the two interposed sesamoid bones fix themselves firmly on the articular edge of the head of the metacarpal bone, that there a loose portion of the capsule is turned over, and that, in place of the normal horizontal direction, the muscles of the thumb come to lie in an oblique, indeed nearly vertical direction to their insertion on the other side of the joint, whereby they fix the phalanx in this new position.

The treatment must consist of either powerful extension, forced flexion, or the so-called impulsion (*i. e.*, forward pressure against the base of the phalanx, at the same time powerfully dragging it back), and, failing either of these, operation. This consists in making an incision in the volar surface, and removing a piece of the head of the bone, with, if necessary, the sesamoid bones also, and finally fixing the thumb by means of a splint.—*London Med. Record*, April 22, 1874.

Local Osteomalacia of the Leg.

Dr. Czerny, of Freiburg, relates a case of this uncommon affection, and makes some interesting remarks which are worthy of a somewhat full report. The paper is accompanied by a wood-cut, illustrating the deformity, which at first sight looks like a badly healed fracture.

S. Rafael, aged twenty-two, served as a soldier during a recent war, and made the forced march which preceded the siege of Belfort. At that time he felt and complained of shooting pains at the inner side of the left ankle, which rendered necessary a short stay in the hospital. He soon became better and continued his service. After the war, he worked as a mechanic. He came to the clinic on March 12, 1872. There was some swelling at the inner side of the ankle, which was not sensitive to pressure. He complained that, after long standing, there was great pain in both ankles. The affected foot was somewhat flatter than the other, which made Dr. Czerny think it might probably be a case of commencing talipes valgus. Rest and moist applications soon relieved the symptoms, and the patient was discharged on March 27 with a Stromeyer's shoe.

Some weeks later he returned to the hospital, and complained that the improvement was only temporary, that the pains were now in the lower part of the shin. There were slight œdema and pain on pressure, and he could not use his foot for any time, so that on May 6 he was admitted into the clinic. At this time there was a slight bending of the tibia, which was thickened at the anterior edge. Dr. Czerny then thought it was a case of chronic osteitis, and applied a gypsum bandage, leaving an opening over the seat of pain, where iodine was applied. The pains disappeared after some weeks; and, as the patient wished to be discharged, he was dismissed with an isinglass bandage.

During his stay in hospital the deformity did not increase, but afterwards the patient did not have his bandage renewed, and through constant use of the leg it became considerably bent. On February 8, 1873, he was readmitted. The left tibia at its lower third was bent at an obtuse angle, so that the tendo Achillis was strongly arched inwards. At the seat of the greatest bending, both bones appeared thickened. On attempting gently to bend the bones with the hands no pain was produced. but there was no yielding. The muscles of the calf were rather weaker than those of the opposite side. The foot appeared as if slightly affected with talipes equino-valgus.

The man could walk with the help of a stick, but was soon tired, and complained of pain in the ankle after long use, which Dr. Czerny thought to be probably due to stretching of the ligaments. In other respects the man appeared in good health, and there was no affection of the other bones.

On July 12, 1873, the condition had not changed. In case the functional disturbance should increase, Dr. Czerny suggested forcible straightening of the bones with, or without, osteotomy; but the patient was loth to acquiesce.

Cases of this kind are so rare, that it is worth while to quote those which one can find scattered in medical literature. Scoutetten (*Gazette Médicale de Paris*, 1841, p. 428) reports the case of a tailor, aged twenty-five, who was otherwise in good health, but who suffered from severe pains in the lower portion of one leg, which was followed by gradual bending of the part, so that finally it gave way or cracked at a right angle. The foot was in the position of extreme valgus. The bones firmly united, so that he became a postman, and walked eight or ten miles daily. The ankle-joint was healthy, and the deformity affected the bones just above the joint. Scoutetten ascribes this deformity to a partial osteomalacia, which developed itself without any known cause, and considered the case unique.

Solly (*Medico-Chirurgical Transactions*, vol. xxvii., 1844) describes two cases which, he concludes, were due to local osteomalacia, and which appeared to belong to this category. In a man aged thirty, one leg gradually became bent, the integuments thickened and ulcerated, and the general health was disturbed so much that amputation was performed. The tibia and fibula showed very loose lamellæ, which were very thin and fragile, filled with a soft red mass

Another man, aged thirty, suffered manifestly from softening of one thigh, which was fractured from a very slight cause. The bone was much thickened and bent. An apparatus was procured for him, by means of which the weight on this side was transferred from the thigh to the pelvis, and thus he was enabled to walk and to work.

Mosetig (*Wiener Medizinische Presse*, 1868, No. 4, p. 89) describes, under the name of osteo-halisteresis, a case of local softening of the bones of the leg. The patient, aged twenty-one, had the year before, during dancing, suddenly felt a very violent pain, which, however, did not prevent him from continuing to dance, after a short rest. Since that time he had occasionally felt slight pains, and observed, for the first time, about Christmas, 1866, that his leg commenced to bend a little above the malleoli. The curvature increased constantly, and at last rendered walking impossible, so that the patient entered the clinic in July. The direction of the curve was outward, and corresponded to an angle of one hundred and thirty degrees; the foot was in a valgus position. The bones were not enlarged at the seat of curvature. They were smooth, and there was no solution of continuity. By daily cautious bending and the application of wooden splints, the limb was quite straight in four weeks. After this the patient was further treated with splints, etc., until the bone became perfectly firm. R. Volkmann adds the following remark. The assumption of the author that in such cases of gradual curvature of the bones we constantly find a halisteresis, *i. e.*, a partial decalcification while the cartilage remains normal, rests on an error. Much more frequently there shows itself, as so-called rarefying osteitis, an increase of the medullary space, and in necrosis (in which Mosetig saw curvatures twice), there was usually an internal fracture.

Weinlechner (*Wochenschrift der Gesellschaft der Aerzte in Wien*, vol. 25, p. 21) saw two cases. A strong butcher, aged between twenty and thirty, had a curvature of the right leg and pain, which prevented him from walking. No injury had preceded it. The bone exfoliated (*federte*). A labourer, aged nineteen, who had been ill for nine months, had both legs bent, the one with the apex of the angle outwards, the other inwards. Here also pain existed. The bone exfoliated. Splints and good nourishment formed the therapeutics. On dismissal, both legs were still pliable.

The cases of Scoutetten, Mosetig, and Weinlechner are extremely like Dr. Czerny's. In all six patients, who were strong men of the labouring class, and were of that age in which the growth of the length of the skeleton ceases, a curvature of the legs above the ankle was gradually developed, and was accompanied by pain, which did not, however, prevent the use of the limb. The limbs were at first pliable, but in some cases became unpliable and hard.

We must here suppose a sclerosis of the bones, if we take into consideration the perfect recovery of the functions in such unfavourable mechanical conditions as in the case of Scoutetten. We have no certain data on the cause of this peculiar affection, if we are not to consider as such the much maligned cold-cathing, which occurs commonly in dancing, or in long marches in deep snow (Dr. Czerny's case). Mosetig assumes, in his case, an injury. In none of the patients is a dyscrasia or a hereditary predisposition mentioned. Solly's first case seems also to belong to this class, but it is not very clear (as given in Hodgson's short report) how long the disease had lasted, whether the disease of the bone had gone on to the formation of pus and ulceration of skin, or whether an ulcer of the skin had been developed at the place of curvature and independent of it, which became so burdensome to the patient that he submitted to amputation. It is probable that the patient could not use his leg for walking, otherwise he would not have so readily submitted to amputation. Unfortunately, we cannot on this account learn anything from this meagre anatomical result, which, so far as Dr. Czerny knows, is the only one which has been examined; and he cannot find out whether Volkmann was induced by other anatomical researches to communicate his remarks concerning this disease.

Solly's second case must rather be ascribed to a senile osteoporosis, and cannot well be explained without an anatomical examination. Cases of local osteomalacia of individual bones, as of the sternum, cranial bones, etc., which

always end fatally, cannot have anything in common with this disease. The fact of the softening frequently ending in sclerosis might make one incline to the diagnosis of delayed rachitis, but the affection in such cases was a purely local one, and there was more inflammation than in rickets. The name osteo-halisteresis only explains a part of the diseased process; as all the characters of osteitis ending with sclerosis were present, the term osteitis deformans seems more applicable.

Dr. Czerny thinks that, when attention has been sufficiently drawn to this disease, cases will be more often recognized. Syphilis may be a cause of bending of bones; and shortly after this case one due to syphilis came under Dr. Czerny's care, and was cured by iodide of potassium, splints, and rest. Syphilis may be suspected in cases of osteitis deformans; and iodide of potassium should be tried.

Mr. Reeves appends to this paper the report of the case of a woman, aged fifty, but looking older, who is now among his out-patients, and came complaining that her legs were bending. One—the right—had commenced to do so three years ago, and the left only during the last fourteen months. Both tibiæ were considerably curved forwards, and at first sight he was inclined to regard the case as an old-standing one, *i. e.*, that she had been the subject of rickets when a child, and that her history was not reliable; but at a subsequent visit she was questioned very closely, and her daughter said that her mother's legs had only commenced to curve during the last three years. This induced him to regard the case as one of so-called senile rickets, and as several features resembled those of the cases of Dr. Czerny, he has thought it well to append a brief notice of it.—*London Medical Record*, March 11, 1874.

—

On the Treatment of Rickety Deformities of the Legs by Operation.

Mr. Howard Marsh read a paper on this subject before the Royal Medical and Chirurgical Society, February 10. The author gave an account of four cases of rickety deformity of the legs which he had treated by operation. In two of them the curvature was outwards, in one outwards and forwards, and in one almost directly forwards. In the first three cases a tendon knife was passed down to the tibia, where the concavity of the curve was greatest, and the periosteum was divided transversely. A fine saw was next introduced, and the bone partially divided, and then, by a somewhat suddenly applied force, snapped across; the fibula was either bent or broken, and in one of the operations the tendo Achillis was cut. In the two cases in which the curvature was outwards the legs are now straight; in the boy whose curvature was outwards and forwards, and in whom the treatment was interrupted by an attack of scarlet fever, the deformity, although much diminished, is not wholly removed. In none of the patients was the operation followed by any serious symptoms, and, except in the boy who had scarlet fever, convalescence was complete in about a month; in him it was complete in about six weeks. In the fourth case, in which the bones of the legs were curved almost directly forwards, and in which the deformity was so extreme that the boy could only walk a few steps at a time, a wedge of the bone was taken out of the tibia with a chain-saw, the tendo Achillis was cut, and the fibula broken in one leg and cut with bone-forceps in the other. These operations, which were performed, the one on April 8, the other on October 4, 1871, were not followed by any dangerous symptoms, but small disks of bone became necrosed, and were slowly separated from the cut ends of the tibia. Union was firm in one leg in three months; in the other, in which it was much delayed by the tedious separation of the necrosed portions of bone, in six months. The legs are now straight, and the boy walks without impediment. The paper was illustrated by photographs and casts of the limbs before operation, and the cases were shown.

Mr. William Adams said that the first three cases—those of subcutaneous division of the bones—were especially interesting, the operation was so easy and innocent, and followed only by good results. He believed this operation would come into more general use in suitable cases. In regard to the fourth case, it is seldom that this operation would be applicable—removing a large

wedge of the tibia and cutting the fibula. Mr. Adams had seen the operation performed by Mr. Little in the National Orthopædic Hospital six years ago, in a woman; the proceeding was a severe one; the future history was tedious, but the ultimate result very satisfactory. Probably Mr. Little introduced the operation into England. In all Mr. Marsh's cases there was the peculiar feature that the disease was nearly limited to the bones of the legs proper; and where the thigh-bones were bent, they had improved by the rest after operation. He believed himself in the spontaneous straightening of rickety bones. Yet in deformities of the thigh-bones in girls he insists upon recumbency for one or two years, on account of the effect upon the pelvis.—*Med. Times and Gaz.* Feb. 21, 1874.

Midwifery and Gynæcology.

On the Means employed at the Preston Retreat for the Prevention and Treatment of Puerperal Diseases.

Dr. William Goodell, Physician-in-Charge of the Preston Retreat, and Clinical Prof. of Diseases of Women and Children in the Hospital of the University of Pennsylvania, contributes to the July and August numbers of the *Obstetrical Journal of Great Britain, American Supplement*, the following interesting paper on the above subject:—

He says: "It was not my purpose to publish the statistics of the Preston Retreat until one thousand cases of delivery had been reached. But, in view of the fatal epidemic of puerperal fever now prevailing in Philadelphia and in the city of New York, I have so far yielded to the wishes of my friend, the editor of this journal, as to give a short account of the precautions taken in this institution to guard against the occurrence of puerperal diseases. This I am the more emboldened to do, because the peculiar measures adopted have apparently made the statistics of this institution compare very favorably, not only with those of like charities, but also with those of private practice. They have also kept its wards free from any epidemic of puerperal fever; although, during the past three years there has been more or less of this disease in this city, and, within the past two months, a number of deaths from this cause have occurred in the immediate neighbourhood of the building.

"The Preston Retreat is a small lying-in hospital for reputable married women. The yearly average has thus far been about one hundred labours, but it is now rapidly increasing. It contains four wards, each with a capacity of 9153 cubic feet, and each furnished with five beds, of which not more than four are generally occupied at one time. The ventilation in winter is obtained by the escape of the cold and foul air through an old-fashioned fireplace, in which a jet of gas is kept constantly burning, and by the free admission of pure air, which has been heated in the basement by passing around steam-chests, with large radiating surfaces. In summer, the admission of pure air depends exclusively upon open doors and windows, and the ventilation is, consequently, less perfect than in winter. In the spring and autumn months, there are many days in which the temperature is too warm for the free admission of heated air, and yet too cold for open windows. These are, therefore, the two seasons of the year which I dread the most, and in which I avoid, as much as possible, crowding the wards.

"The wards are used invariably in rotation. By close management, and by crowding walking patients together, one of these wards in its turn stands idle for two or three weeks. During this time the doors and windows are kept open. Before it is again occupied by patients, the walls, floor, wood-work, and furniture—all of which are painted—are thoroughly scrubbed with carbolic acid soap, and then mopped over with a solution of half a pint of carbolic acid (Calvert's No. 4), to one pail of water. From this time until the ward is again

vacated, no portion of it, not even the floor—unless accidentally soiled—is touched with water.

"The nurses wear such clothing only as can be washed. As soon as the inmates of a ward are well enough to take care of themselves or of one another, their nurse is relieved from duty. She now takes a soap bath, puts on an entirely clean suit of clothes, and goes into a ward which has been thoroughly ventilated and cleansed. Before a new batch of patients falls to her care, she has had one week or more of rest. I visit the wards thrice daily, beginning always with the ward last occupied, and with the patient last delivered. Whenever a vaginal examination is needed, it is put off until all the other patients have been seen. The examining finger is then anointed with an ointment containing carbolic acid, and the hands are afterwards washed with carbolic acid soap. Post-mortem examinations I never perform. Whenever one is needed, an expert is called in, and remunerated for his services.

"The beds consist of a tick filled with fresh straw and covered with an army blanket. After the discharge of a patient, her bed is emptied, and the tick, blanket, and bedclothes are boiled in water to which a little carbolic acid has been added. Each bed is furnished with a feather bolster and pillow, which are exposed on slats to the air when not in use. Once a year every bolster and pillow-tick in the house is washed, and the feathers baked and "renovated," as it is technically termed. They also pass through the same process whenever soiled, or whenever used by a patient whose convalescence has been delayed.

"The patients come chiefly from the poorest classes; but many in more comfortable circumstances, with the hope of getting better care, seek admission on account of some difficulty attending their former labours. On this account, the proportion of difficult labours is much above the average. Those patients who have families often put off coming in until labour has actually begun, and then leave at the earliest possible moment. Notwithstanding this, since patients have the privilege of remaining four weeks after their delivery, the average stay of each one is sixteen days before delivery, and eighteen days after. Every patient, upon admission, takes a warm bath, and at least one a week thereafter before her delivery. If she exhibits signs of feeble health, she is at once put upon the use of quinia, and of the house mixture, consisting of two parts of the muriated tincture of iron, with three of diluted phosphoric acid. The habitual constipation of pregnancy is met by the administration, either in the morning of a teaspoonful of pulv. glycyrrhizæ comp. of the Prussian pharmacopœia; or, at bedtime, of four Lady Webster's pills (pil. stomachicæ). When a more active purge is needed, the pulv. jalapæ comp., or the pil. cathartic. comp. (U. S. P.) is given. Headache and sleeplessness are treated by warm baths, by full doses of potassic bromide, and by the above-named medicines, when indicated; albuminuria is dealt with in pretty much the same way, but always with iron and phosphoric acid. The regular diet is plain and wholesome, yet more liberal than is usual in charitable institutions. Apart from the frequent use of aperients, a relaxed condition of the bowels is promoted by serving table syrups at every meal, by fruits—fresh or dried, according to the season—and by all such vegetables as can be eaten raw, viz., lettuce, cress, radishes, leeks, onions, tomatoes, cucumbers, and cabbages. Of these, in this latitude, an ample supply is obtainable during nine months of the year.

"When a patient falls into labour, she first has her bowels moved by an injection, and then takes a warm bath. The bag of waters is usually ruptured artificially, and the liquor amnii collected in a grocer's scoop. The second stage of labour is never allowed to linger; any delay is met by the use, either of the vectis or of the forceps. As soon as possible after the birth and the removal of the child, the placenta is delivered by Crede's method. I may here remark that the still pulsating cord is first cut, then "stripped" of its blood, and as much as possible of its gelatin, and finally tied, when it has ceased to bleed, and has become flaccid. Neither belly-band nor any kind of dressing is afterwards applied, but the cord freely dangles about from the navel. Treated in this manner, it dries up without any bad smell, and falls off like a ripe fruit, without leaving a raw stump. Out of more than five hundred infants treated

thus, not one has had a pouting or sore navel requiring treatment, and not one has had an umbilical hernia. I am also well satisfied that, by dispensing with the belly-band, I have had fewer cases of inguinal hernia. Those of my readers who wish a more detailed account of this method of dealing with the cord, can consult the *American Journal of Obstetrics*, vol. iii. p. 327.

"Ergot is hardly ever resorted to as an oxytocic; but one teaspoonful of the fluid extract is invariably given as soon as the head presses upon the perineum. When the labour is over, the perineum is examined, and, if torn, is at once sewed up with silver sutures. The patient is now washed clean, and a binder and cylindrical compress applied, the latter in the hollow just beyond the fundus of the womb. The bedstead on which she has been delivered is next wheeled from the Delivery Room to a ward and placed along the side of a bed, to which the woman now hitches herself over. Contrary to the generally held opinion that absolute rest after labour is indispensable, in no single instance has this muscular exertion apparently brought about a flooding. It seems rather to condense still further the uterine globe. Very rarely, indeed, has a flooding happened outside of the Delivery Room. However warm the weather, a blanket is thrown over the patient, and a foot warmer put to her feet. These remain until reaction sets in, and she asks to have them removed. A mug of beef-tea made from Liebig's extract is now given, and the child put to the breast as soon as it will take it. Thereafter, in a natural convalescence, the woman gets tea, boiled eggs, bread and butter, for breakfast; potatoes, and some kind of meat for dinner; stewed or fresh fruits, tea, bread and butter, for supper. On the morning following the day of her labour, the binder is removed for good, and she slips into a chair while her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will; yet the force of example is so great, that very few care to stay in bed, when they see their companions up and about.

"No woman is allowed to suffer from after-pains. Whenever these are complained of, one-quarter grain doses of morphia are administered every hour until relief is obtained. In stubborn cases of after-pains I have found nothing act so promptly as the exhibition of ten grains of quinia every six hours, until the ears ring. For this valuable suggestion I am indebted to my friend Dr. Fordyce Barker. Bed-pans are not employed, except in cases of illness, or in cases requiring vaginal injections; but each woman has her own chamber-pot which she uses indifferently, either in the sitting or the knee-elbow posture. Every woman is required to wash her own person at least once a day, and that with carbolic acid soap and a wad of fine oakum, which is at once thrown away. Only under very exceptional circumstances does the nurse cleanse the patient. Should the lochia become offensive, the woman is made to get out of bed and slip into a chair three or four times a day. This usually corrects the fetor; but if it does not, then and only then is a solution of potassic permanganate thrown up into the vagina. Firmly believing the nozzle of a syringe to be the medium of virus communication from patient to patient, I avoid the use of vaginal injections as much as possible. For a like reason, the temperature thermometer is not habitually used, but only in single cases as an aid to diagnosis.

"Whenever the lochia are offensive, or the pulse is over 90, or the thermometer indicates a temperature higher than natural, or pelvic pains are complained of, or, in short, whenever any untoward symptom appears, quinia is given in from six to ten-grain doses every four hours, until the ears ring. In addition, for abdominal pains large doses of morphia are given, and the whole belly is painted with iodine, and covered with a mush poultice. The canonical purge on the third day is dispensed with. A patient has usually a movement of the bowels either before, or on the day in which she gets up for good. If this does not happen, she takes four Lady Webster's pills at bedtime, which then act on the morning of the sixth day. As soon after getting up as she feels strong enough, she takes a warm bath."

(*To be concluded.*)

Obstetrical Anæsthesia.

Professor Gubler, presenting a memoir to the Académie de Médecine upon this subject from Dr. Campbell, the well-known obstetrician of Paris, drew an observation from Prof. Depaul, which we may notice. The purport of Dr. Campbell's memoir was to give an account of his experience in the administration of chloroform. He has, it seems, employed what he calls "obstetrical anæsthesia" in 942 cases without having to regret the slightest accident; and he believes that the cause of such immunity is to be found in the efforts rendered necessary for the expulsion of the infant and the cerebral hyperæmia which necessarily accompanies these. Prof. Depaul observed that surgeons understand by the term anæsthesia the absolute loss of movement, sensibility, and consciousness, which is determined by the administration of a more or less considerable quantity of chloroform or ether. But in none of Dr. Campbell's cases was this kind of anæsthesia produced. He contented himself by giving very small doses of chloroform, by means of which a certain amount of insensibility was produced; and it would be an error to suppose that these 942 women have been subjected to anæsthesia as generally understood with immunity. Accidents from the obstetrical administration of chloroform are not unknown, and M. Depaul is in possession of cases in which sudden death has been produced by it. He believes that great care is required in its administration, and that in cases of ordinary labour it can be very well dispensed with. Prof. Gubler, in reply, observed that in the immense majority of obstetrical cases there is no necessity to carry the anæsthesia to absolute unconsciousness, it often sufficing to determine a slight insensibility in a nervous or pusillanimous woman to facilitate the process of parturition or to obviate certain inconveniences. Dr. Campbell has sought to produce a variable amount of anæsthesia according to the case, and has almost always found that slight insensibility sufficient to which the name "obstetrical anæsthesia" has been given in order to specify it.

(The mere smallness of the dose will not explain the immunity observed in the administration of chloroform to lying-in women, as it is well known that in many cases of death from chloroform this has ensued upon the inhalation of very small quantities of chloroform. The immunity reported by Dr. Campbell has been met with in the practice of all obstetricians; and we would suggest to Prof. Depaul that he would do a good service by publishing the details of the fatal cases which he says he is in possession of.)—*Med. Times and Gaz.*, July 11, 1874.

—

Local Treatment of Cystitis in Women.

Dr. J. Braxton Hicks gives (*Brit. Med. Journ.*, July 11, 1874) the results of his experience in the local treatment of cystitis in which he has great confidence, whilst he reposes but little in internal remedies, except such as are correctives of the state of the urine, when it is acid or alkaline. "If the urine," he says, "enters the bladder overcharged with lithates, then a cautious use of alkalies coupled with opiates will assist; taking care that the alkali be suspended as soon as the urine becomes natural in this respect. Again, should we find it alkaline, it may be advisable to employ some mineral acid for a time, also coupled with an opiate. With regard to an opiate, there is no doubt that this remedy is the most valuable of all internal remedies, partly because it lessens reflex sensitiveness, and thus the bladder is not so frequently hurting itself by its forcible contractions, and partly because it gives relief from pain."

In cases of severe acute cystitis, with much pain and frequent or constant desire to micturate; severe scalding along the urethra during micturition; the bearing down constant and intolerable; irritative fever; urine loaded with mucus, purulent and bloody, the first point to make out, Dr. H. says, "is whether the urine be still acid or have become alkaline. I may here add, that it is seldom acid in a case such as here supposed; but at the early stage it may be, before pus has appeared. Generally, it is very alkaline, and commonly also ammoniacal. Supposing it is alkaline and ammoniacal, then proceed in this way. Take a

catheter—gum-elastic is best, and still better if open at its end instead of the side, as usually made—let it be well greased or oiled and passed gently just into the bladder. Draw off the urine. (The open-ended form is of great advantage in many cases where the mucus is copious and very ropy.) Be careful to enter the bladder the least distance possible, and withdraw the catheter just without the neck when the bladder is on the point of being emptied. This saves the mucous membrane from flapping down on the end. Then, with a syringe, throw up through the catheter warm water slightly acidulated with either nitric, hydrochloric, or acetic acid (vinegar does very well); if nitric or hydrochloric acid, about two drops of the strong to the ounce of warm water. As soon as the patient complains of desire to micturate, allow it to flow away again. More of this acidulated water may be used, till the bladder seems clear of the phosphates and mucus. About half a pint of acidulated water will generally suffice.

"Then inject also through the catheter about one grain of morphia dissolved in about one ounce of water; quickly withdraw the catheter from the urethra, and instruct the patient to retain it as long as possible. It is a very rare instance if this single application do not produce very marked benefit. In the very acute cases, the passing of the catheter requires tenderness and care, because of the great sensitiveness of the urethra and lower bladder. But, if the precaution be taken of not introducing the catheter just within the bladder, much pain is saved. The exact distance can, at the first passage, be marked on the instrument. But to avoid the contact of the catheter with the bladder during the washing out, as much as possible, I always pass the injections into the bladder without entering its cavity. This can be readily accomplished by employing an open-ended catheter; a little extra force on the syringe will drive the fluid past the sphincter. If the injections are to be withdrawn, then the instrument can be made to enter, but only, as above mentioned, so far as may be necessary to allow the fluid to flow.

"This treatment should be repeated twice daily, if the case be very severe, and especially in the case of retention, because of the ammoniacal decomposition of the urine; and, as the urine must be drawn off at least twice a day, there will be no additional distress given by passing the catheter.

"In regard to the frequency, there is one point to be considered, viz., the irritation to the urethra caused by catheterization. Of course, it is undesirable that we should pass the instrument more frequently than needful; yet it is to be also noted that frequent micturition itself causes soreness or abrasion of the urethra; so that, if we succeed by our treatment in mitigating the frequency of urination, we shall compensate for this; and this is in accordance with my experience. By the treatment above described, we do very quickly lessen the frequency, and more than entirely compensate for the irritation of catheterization.

"Where the urine has not become markedly alkaline, we may content ourselves by simply injecting the solution of morphia; yet, if we first of all wash out the bladder with warm water or warm solution of permanganate of potash, we shall much expedite the cure. The strength of the lotion should be three times that generally in use, as it is very rapidly decomposed by the urine. When this has been allowed to flow away, we may inject the morphia solution.

"After some days of this treatment, I sometimes employ, instead of the permanganate of potass, a solution of chlorate of potassa, about three or four grains to the ounce; using plenty, drawing it off after a few minutes, according as it gives pain, and then injecting the morphia.

"Regarding the dose of morphia, I may add that, if there be no blood in the urine and the patient feel no constitutional effects from a grain, I increase it to two grains. If blood appear in the urine, it is a sign of some abrasion, in which case the morphia is more likely to be absorbed; yet I have never seen any unpleasant symptoms even from two grains. The more we use, without affecting the system much, the better; locally subduing the nerve-irritation and the tenesmus of the bladder, and the crushing of the mucous membrane which the contraction produces.

"As the acute symptoms subside, we may employ more astringent washes;

such as two or three grains of tannin in each ounce of warm water, or three or four drops of solution of perchloride of iron, using morphia immediately afterwards, as before mentioned. Our choice depends upon the amount of pain caused, the object being not to cause more than necessary. If the urethra be very tender, and catheterization seem to produce irritation, I omit all treatment for a day or two, after which we can resume it with much benefit. If after a fortnight the main symptoms be subdued, but the urethra seem very tender, I apply an astringent directly to it. A bougie or catheter, covered with tannin, made very smooth, and dipped in gum-water before introduction, is not very painful, and answers well. A probe, on which a film of nitrate of silver has been fused, may be tried. Of course, pain succeeds; but, on its subsidence, patients have expressed much relief. However, in the more acute stages and forms of cystitis, one should avoid this, unless the urethral irritation be very marked. Later on, this may be freely adopted and other remedies tried, as passing a stick of fused anhydrous sulphate of zinc, or even mopping over the urethra with solution of perchloride of iron, carried up by a probe covered with cotton-wool or similar material. This irritation of the urethra is the cause generally, in cases with frequent micturition, of much additional suffering, and, by its reflex action, keeps up the irritation of the bladder; so that we may say they play into each other's hands. The urethra bears active treatment better than the bladder, and I have even dilated it and mopped it over with solution of perchloride of iron, with great relief the next day.

"But, when cystitis has become chronic before we see it, or we have arrived at the same condition, but much earlier, by our treatment, we sometimes find it troublesome to completely cure the complaint. I have found, at this time, the injection of a solution of nitrate of silver of much service—from five to ten grains to the ounce. I have even used it up to fifteen grains to the ounce. This causes some rather severe pain for a short time, but much relief afterwards. Of course, two grains of morphia are left in afterwards. This may be repeated a week later. Or, instead of the nitrate of silver, I have employed perchloride of iron stronger than before mentioned (ten minims to the ounce). Now and then, for a few days together, it is well to leave off treatment in the chronic stage, to see how far the local interference may be rather keeping up irritation. I may be thought rather to be condemning local treatment by thus remarking, but really it is not so; we can, by local treatment, soon make a most distressing malady a bearable one; yet, at the same time, we know that frequent passing of the catheter may cause irritation, but slight only compared with acute severe cystitis. It is only when we come to the end of the case that we have to note the possibility of keeping up a slight irritation by our too frequent action.

"I may add that, in the acute stages, the warm hip-bath, and warm sponge to the genitals, are not to be omitted, together with perfect rest in bed; the bowels must be kept gently relaxed; the dietary should be very simple and light, such as will naturally commend itself to our judgment upon common principles. But on no account should any kind of alcoholic beverage be permitted; and this rule should be observed rigidly during the whole period of the complaint, excepting only in such cases as it is imperatively necessary from other conditions of the patient's health.

"I have thus only rather shortly sketched out the plan which I have used and would strongly recommend to your notice. The benefit of such management is very marked in cases of paralysis, where, from retention or the rapid ammoniacal decomposition of the urine, the distress and constitutional irritation are very distressing; and thus we can often lessen the chance of the extension of the irritation to the kidneys. Again, in malignant disease, the simple injection of acidulated warm water gives amazing comfort, removing the phosphates and ammonia, and, when to this is added the morphia, a wonderful comfort is felt. Indeed, so much relief is obtained, that, with a large calculus in the bladder, its presence is almost enterely unfelt if morphia be daily injected.

"I would recommend the extension of this treatment to inflammation of the male bladder. The same precautions can be taken regarding the entry of the catheter. I have found that it is not needful to pass the end through the

sphincter; but, if an open-ended catheter be employed, the fluid will find its way through readily. If the catheter be only passed about three or four inches, even then the fluid will find its way into the bladder; and this is an advantage for the male, as the area of urethral irritation by catheterization is thereby lessened.

"After cystitis has lasted some time, irritability generally exists for some considerable period afterwards. This is much lessened by occasional morphia injections; but it may very possibly be due to the contracted state of the bladder, which cannot be quite overcome by the will, although the exercise of the power of retaining urine increases the power of the sphincter, and consequently the capacity of the bladder. In this case, we may often succeed with a plan which I have some time ago, and again more recently, advocated, namely, gently distending the bladder with warm water by means of a syringe, which frequently overcomes the difficulty in a few days."

—

Treatment of Fibrous Tumours of the Uterus by the Hypodermic Injection of Ergotine.

Dr. Lombe Atthill, Obstetric Physician to the Adelaide Hospital, Dublin, reports (*Irish Hospital Gazette*, Sept. 1, 1874) three cases of fibrous tumours treated by this method, which, in the author's opinion, established two facts: 1st. That the hypodermic injection of ergotine is most efficacious in restraining uterine hemorrhage depending on the presence of a fibroid; and, 2dly. That the treatment is not altogether unobjectionable; for in all my cases troublesome abscesses sooner or later formed, and in two of the patients gave rise to considerable disturbance.

Experience has proved to Dr. Atthill the correctness of the observations made by Dr. Keating, of Philadelphia (*American Journal of the Medical Sciences*, July, 1873), that the tendency to inflammation occurring after the injection of ergotine, is much lessened by passing the needle through the cellular tissue into the substance of the muscle.

Dr. Atthill deduces the following conclusions from his cases:—

1. That *Wigger's pure ergotine* is inert, and useless for the purpose of hypodermic injection.

2. That *Bonjean's* ergotine hypodermically injected, exerts a marked effect on cases of uterine fibroids, lessening the amount of blood lost, and lengthening the periods, but that its use is liable to be followed by the formation of abscesses.

3. That the *extractum ergotæ liquidum*, B. P., is still more efficient in checking the uterine hemorrhage occurring in these cases, but that its use causes at the time severe pain, and that troublesome abscesses are very likely to form at the site of the injection.

To me it seems remarkable that in Dr. Hildebrandt's cases, no unpleasant symptoms ever resulted, while in mine, abscesses invariably, sooner or later, occurred. I can only account for this discrepancy in results, by supposing that the ergotine used by Dr. Hildebrandt is different from any I could procure.

If a preparation can be found, at the same time efficient in controlling the hemorrhage, and not liable to produce troublesome sores, a great benefit will be conferred on the unfortunate subjects of that painful, and indeed often fatal affection, fibrous tumours of the uterus.

—

Treatment of Cancer of the Uterus.

Prof. Karl Schröder (*Sitz. Ber. der Physic. med. Soc. zu Erlangen*, 1873) gives the details of two cases in which he employed with great advantage an alcoholic solution of bromine in the treatment of this disease. The following is the way in which he uses it: Having removed by the écraseur or scissors as much of the diseased mass as is possible, he applies the actual cautery to the stump, pressing it deeply into all those parts where any of the new growth is detected. After the eschar has been detached, having first protected the

healthy parts by applying cotton-wool dipped in a solution of carbonate of soda, he presses against the diseased parts plugs of cotton-wool moistened with an alcoholic solution of bromine (1 in 5). He thinks the bromine attacks the cancerous growth more energetically than the normal tissues.—*Obstetrical Journ. of Great Britain*, March, 1874.

—

On Intrauterine Fibroma of the Orbit.

At the sitting of the Königsberg Society of Medical Science, on February 9 (*Berliner Klinische Wochenschrift*, July 20), Herr Perls demonstrated, as a contribution to the causation of growths developed in utero, a case of fibroma of the orbit, with infiltrating ostitis of the roof, and a fibromatous thickening of the dura mater. The case occurred in the practice of Herr Loch, of Danzig. The infant was born with marked exophthalmus on the right side, and died within twenty-four hours.

The external upper half of the cavity of the orbit was filled with a rounded smooth solid mass, about two inches in diameter, thicker behind than forward. The periosteum was lost in the mass of the tumour. The external rectus passed over it, separated from it. A transverse section displayed a very hard smooth fibrous surface, chiefly of an opal yellow, in places of grayish-green colour. The lachrymal gland was absent. Under the microscope it presented a hard fibrous structure, with a few cells; chiefly, however, composed of fine fat-molecules and a few vessels. In places there were small bunches of fat-globules. The dura mater exhibited a small round thickened spot, about the size of a sixpence; its upper surface was not smooth, but uneven, and beset with fine proliferations of areolar tissue. When the dura mater was stripped off, it was about two millimètres in thickness, and of a very hard thick fibrous consistence, of a greenish-gray colour on section. The place where the dura mater was attached presented a somewhat crumbling soft irregular surface, and a portion was adherent to it. The under surface, with which the tumour was connected, exhibited a similar condition. The separation from the bones both of the dura mater and tumour was easily effected, and its surface appeared on both sides partly finely and partly coarsely fibrous. The pores were covered and filled up by a soft tissue in most places. The middle portion of the orbital roof was very thin and fragile, and showed several small irregular holes permeating its whole thickness, equally filled up with the soft tissue. This soft tissue presented the small cells and vascularity of a granulation-membrane, and the surfaces of any section showed the bones to be more or less infiltrated with this material, and that principally in the lacunæ (Howship's). On colouring with carmine, the membrane that filled up these lacunæ was found to consist in part of small cells, or large cells containing many nuclei, whose form often exactly corresponded with the depressions in the remaining bone-substance. The structure of the bone everywhere beyond these lacunæ was normal.

Herr Perls remarked on the extreme rarity of any growth occurring during intrauterine life, except dermoid cysts and erectile tumours. He believed this to be an unique preparation. Whether the preparation in the Göttingen Collection of an enormous (osteogenous ?) fibroma on the scalp of the child was intrauterine or not, was not evident from the description given by Förster.—*London Med. Record*, Aug. 19, 1874.

Medical Jurisprudence and Toxicology.

Poisoning by Chloral.

Dr. Anstie relates (*Practitioner*, Feb. 4, 1874) a case of chloral-poisoning, which is remarkable not only for the unparalleled large dose, but for some of the symptoms evoked. A medical man began to take chloral in ʒss doses in February, 1873, as a hypnotic. He intermitted it for a while, but in August, 1873, he recommenced its habitual use, and took chloral, *during the day*, from one to three times daily. At this time he was very intolerant of alcohol, which, in the smallest quantity, flushed his face, and caused severe headache. For a considerable period he was in the habit of taking *over half an ounce* of chloral in the twenty-four hours. In the beginning of December he was affected with severe general pains, particularly about the joints. The day before Dr. Anstie saw him he had, by mistake, taken an overdose of chloral—viz., *more than an ounce*. He slept during the day, but not in the night, and had dreadful pains. When seen by Dr. Anstie he appeared as if partially drunk, and suffered temporarily from some leg-weakness and want of co-ordinative power. The treatment adopted (sal ammoniac and extr. cannab. ind.) had little effect. The chloral was, of course, discontinued; and in about a fortnight he was fast recovering his power of natural sleep, and the pains had almost entirely disappeared. For a while he was annoyed with a singular dryness of the skin. The pains were peculiar—they did not run in the course of the nerves like neuralgia, nor exactly in the joints like articular rheumatism; they seemed to encircle the limb immediately above or below a joint.—*Dublin Journ. of Med. Sci.*, August, 1874.

—

On the Madagascar Ordeal Poison.

In an account, historical and physiological, of the Madagascar ordeal poison, the Tanghinia Venenifera, Mr. Andrew Davidson (*Journ. of Anat. and Phys.*, Nov. 1873) gives the following conclusions:—

1. The Tangèna must be classed among the cardiac poisons. It uniformly causes death by arresting the action of the heart.

2. It does not act on the heart through the vagus nerve. When applied to the exposed heart its rapidity of action is remarkable. The fact that it arrests the pulsations of the excised heart of the frog is conclusive proof that its influence, when topically applied, is direct, either on the muscular substance, or the muscular substance *and* cardiac ganglia.

3. There is sufficient reason to believe that the Tangèna acts on the spinal cord, producing paralysis and diminishing reflex action.

4. Voluntary motion is abolished, and the irritability of the motor nerves lessened by the poison. When it acts through the circulation in mammalia, sensation is not remarkably affected; muscular contractility is very much diminished. More exact knowledge of the degree and order in which these various functions are affected, can only be obtained by carefully performed experiments made in Europe, where the more delicate electrical instruments can be had.

5. It is exceedingly fatal to man, in doses of thirty grains of the kernel, if not promptly ejected.

6. It causes a numb, tingling sensation in the part with which it comes into contact, and also throughout the body.

7. It is powerfully emetic and purgative, produces great nausea and debility, paralysis of motion, occasionally delirium, narcotism, and perhaps vertigo.

8. It may be inferred to cause death in man, as in all other animals, by tetanizing the heart.

CONTENTS.

Anatomy and Physiology.

On the Anatomy and Histology of the Testicle. By V. von Mihalkovics . . . 145
The Structure of the Mucous Membrane of the Uterus and its Periodical Changes. By Dr. John Williams 146
Accessory Lobe of Right Lung. By E. W. Collins 146
On the Act of Vomiting. By Carl Greve . 147

Materia Medica and Therapeutics.

The Action of Alcohol. By Dr. Parkes . 148
The Physiological Action of Propylamine and other Derivatives of Ammonium. By M. Laborde 150
General Remarks on the Internal Administration of Free Phosphorus. By Mr. J. Ashburton Thompson 151
The Use of Quinia in Infantile Diseases, and especially in Hooping-Cough. By Dr Rapmund 152

Medicine.

Cases of Convulsion from Organic Brain Disease. By Dr. W. R. Gowers . . . 153
On Paralysis and Cutaneous Disease. By M. Laucereaux 153
On the Functions of Brain and Muscle considered in Relation to Epilepsy. By Dr. J. Thompson Dickson 154
On Epileptic Sweat. By Dr. H. Emminghaus 155
Parotiditis as a Sequence of Acute Disease. By Prof. Crocq 156
On the Changes which Certain Mechanical and Chemical Irritants Produce in the Pulmonary Parenchyma. By W. Koch . 157
Connection of Inflammation of the Heart with Erysipelas of the Face. By M. Jaccoud 158
Contraction of both Auriculo-Ventricular Orifices of the Heart. By Dr. Hayden . 158
Case of Arterio-Venous Aneurism of the Arch of the Aorta, the Cavity of which Communicated with the Left Brachio-Cephalic Vein. By M. Chaboud 159
Ailanthus Glandulosa as a Remedy for Dysentery. By Dr. Robert 160
On the Therapeutics of Gall-Stone Colic. By Dr. W. Pichler 161
Granular Contracted Kidney in a Child Six Years of Age. By Dr. Barlow . . . 161
Treatment of Lupus Erythematosus. By Dr. Theodore Veiel 162
On Alopecia. By Dr. Courrèges 163
Hereditary Local Hyperidrosis. By M. Ollivier 163
Morbid Sweating of the Feet and its Treatment. By Dr. Debrousse Latour . . . 163
Acne and other Affections of the Skin due to Bromide of Potassium. By Dr. Theodore Veiel 165
On the Treatment of Tetanus Neonatorum with Chloral-Hydrate. By Dr. A. von Huttenbrenner 166
Sarcoma of the Kidney in an Infant. By Dr. Jacobi 166

Surgery.

On a New Method of Curing Ulcers. By Dr. Nussbaum 167
Primary Lupus of the Conjunctiva. By Dr. H. Sattler 168
On Deposits of Metals in the Cornea and their Treatment by Chemical Reagents. By Dr. Herkel 168
Cystoid Degeneration of the Iris. By M. Wecker 169
On Repositio Ciliorum for Trichiasis. By Dr. Argyll Robertson 170
On Trephining the Mastoid Process. By M. Brochin and Mr. William Allingham. . 170
Cases of so-called Ichthyosis Linguæ. By Mr. W. Fairlie Clarke 170
Galvano-Cautery in Tracheotomy. By M. Krishaber 171
Swallowing of a Shawl Pin—Passage per Anum. By Drs. S. Caro, J. C. Peters, Briddon, and Knapp 172
On Cysts of the Posterior Wall of the Bladder in Man. By Dr. Englisch . . . 172
Spina Bifida cured by Injection. By J. Ross Watt, M D. 173
Blood Cyst of the Hand. By Messrs. T. Harrington Haward, P. Hewitt, and T. Smith 174
Amputation of Penis for Epithelioma. By Dr. Watson 174
On Amputation in the Continuity of the First and Fifth Metatarsal Bones. By Dr. Desprès 175
Exsection of the Hip-Joint. By Dr. Lewis A. Sayre 175
On Spontaneous Fractures and Dislocations in Ataxic Patients. By M. Bergeron . 178
On Dislocation of the Thumb at the Metacarpo-phalangeal Articulation. By Dr. Langer 179
Local Osteomalacia of the Leg. By Dr. Czerny 180
On the Treatment of Rickety Deformities of the Legs by Operation. By Mr. Howard Marsh 182

Midwifery and Gynæcology.

On the Means Employed at the Preston Retreat for the Prevention and Treatment of Puerperal Diseases. By Dr. William Goodell 183
Obstetrical Anæsthesia. By Prof. Depaul . 186
Local Treatment of Cystitis in Women. By Dr. J. Braxton Hicks 186
Treatment of Fibrous Tumours of the Uterus by the Hypodermic Injection of Ergotine. By Dr. Lombe Atthill 186
Treatment of Cancer of the Uterus. By Prof. Karl Schröder 189
On Intra-Uterine Fibroma of the Orbit. By Herr Perls 190

Medical Jurisprudence and Toxicology.

Poisoning by Chloral. By Dr. Anstie . 191
On the Madagascar Ordeal Poison. By Mr. Andrew Davidson 191

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 383. (*For List of Contents see last page.*) November, 1874.

Anatomy and Physiology.

Congenital Malformations of the Lower Jaw.

Dr. Alexander Ogston, of Aberdeen, gives, in the *Glasgow Medical Journal* for July, 1874, a complete *résumé* of the various congenital malformations to which the lower jaw is subject, and embodies, in a series of propositions, the conclusions which are warranted by our present knowledge of these deformities. These are as follows:—

1. Congenital deformities of the lower jaw are very rare.
2. Non-development of the lower jaw has been recorded in animals, but never in man.
3. Excessive development of the lower jaw appears to occur, though very rarely, and minutely recorded cases of it do not exist.
4. Preponderance of size of the lower jaw has been observed as the result of deficient development of some of the other facial bones.
5. Congenital smallness of the whole lower jaw occurs, and is generally associated with symmetrical deformities elsewhere.
6. Congenital smallness of the whole lower jaw may lead, in after life, to acquired deformities of the bones of the cranium and face.
7. Congenital unilateral smallness of the lower jaw has been found in one case with, and in two without, formation of the temporo-maxillary articulation of the same side, and coincided in all with asymmetry of the cranium.
8. Congenital dislocation of the lower jaw is said to have been met with in a single imperfectly recorded case.

—

The Use of the Ligamentum Teres of Hip-joint.

At a late meeting of the Cambridge Philos. Soc., Mr. W. S. Savory, F.R.S., read (*Lancet*, May 23, 1874) a paper on the use of the ligamentum teres, which, though variously stated, he did not think had been correctly given. The statement that the ligament is vertical and tight when the person is erect had been challenged, but he was satisfied of its accuracy. It could be demonstrated by removing the bottom of the acetabulum with the trephine. The ligament is moderately tight when a person stands evenly upon both legs. It is tighter when the femur is slightly flexed as it more usually is. But when resting upon one leg, inasmuch as the pelvis is then raised on that side, which of course affects the ligament in the same way as adduction of the femur would do, then the ligament becomes extremely tense. In other words, it becomes tightest when the hip-joint has to sustain the greatest weight. When, therefore, the pelvis is borne down upon the femur, or when the femur is forced upwards—that is, when the pressure would be greatest between the upper part of the acetabulum and the opposite surface of the head of the femur—it is put directly on the stretch. More precisely, its great purpose is to prevent undue pressure between the upper portion of the acetabulum, just within the margin, and the corresponding part of the head of the femur. But for this ligament such undue pressure must inevitably occur. Suppose the ligamentum teres absent, and the person standing upright, owing to the obliquity of the acetabulum and the

head of the femur—of the axis of the joint—pressure between the two could not be equally, or nearly equally, diffused over their opposing surfaces, but it would be concentrated on a spot in the upper part of the socket through which a line drawn down the body, through the joint into the leg, would pass. When the thigh is straight, when the femur is in a line with the body, as when one stands upright, then is the ligamentum teres in the same line too, and, consequently, any force which drives the femur and pelvis together must tell at once upon the ligament, and be directly checked by it. Owing, therefore, to the shape and obliquity of the hip-joint, and the weight of the body, the ligamentum teres is necessary to prevent concentration of pressure at a particular point above it. The line through which the weight or force acts between the upper part of the acetabulum and the opposed surface of the head of the femur forms, with the line of weight or force which passes through the ligamentum teres, an obtuse angle; and the resultant of these forces is in a line which passes through the long axis of the head of the femur. When the person is erect the body partly hangs upon the ligamentum teres. This, he submitted, is the prime function of the ligamentum teres. Other purposes he did not deny, but would maintain that they only occasionally come into play, and are altogether subordinate to this one, which is especially called into action whenever the weight of the body is thrown upon one leg. He supported his view by reference to comparative anatomy, remarking that it is present when the acetabulum looks outward and the head of the femur is inclined inward; in other words, when the hip-joint is placed obliquely, so that there would otherwise be undue pressure at a particular part, and that it is absent in those animals in whom, although it is an instrument of progression, the posterior extremity does but little in supporting the weight of the body—*e. g.*, seals and the orang-outang. In conclusion, he called attention to a specimen in the museum of St. Bartholomew's Hospital in which the ligament is absent in both sides without any appearance of disease in the joints.

In discussions which followed, Professor Humphry, after expressing his obligation to Mr. Savory for affording the opportunity of discussing the subject with him, observed that the suggestions made with reference to the function of the ligament by Mr. Savory rested entirely upon the view that the ligament is tight in the erect posture. Professor Humphry was one of those who had challenged this view, of the accuracy of which Mr. Savory had expressed himself to be satisfied. He referred to his work "On the Human Skeleton, including the Joints," in which he had stated, as the result of careful observation, that the ligament is not tense, and cannot be rendered tense, in the erect posture. He had lately reconsidered the question and re-examined the specimens, or some of them, upon which his statement had been based, as well as other recent specimens made for the purpose, and he was convinced that it was correct. In the first place, the furrow in the head of the femur for the ligament is more or less oblong or pear-shaped, and is directed from above downwards and backwards with such obliquity that the ligament can lie in it, as it must do when it is in a state of tension, only in the semi-flexed position of the hip, the thigh being inclined from the vertical to an angle of about 45°. This can be seen in the dry bone, and still better in recent specimens in which the direction of the insertion of the fibres of the ligament corresponds with this view. Secondly, the trephine hole through the bottom of the acetabulum shows clearly that it is at about this angle only, and when the thigh is adducted, that the ligament is really tense. In the erect posture—and by the erect posture he meant when the thigh descends vertically from the pelvis, and the capsular ligament, more particularly the anterior part of it, is tight—neither adduction, nor rotation, nor any other movement will throw it into a state of full tension. If this is so, which the several specimens examined by the Professor proved to be the case, then it is quite certain that the body cannot hang upon the ligamentum teres when the person is erect, and the inferences based upon such a view fall to the ground. When resting upon one leg the body is tilted a little over to that side so as to throw the line of gravity more directly to that limb, the opposite side of the pelvis is slightly raised, the movement being equivalent to that of *ab*duction of the limb upon which the

weight is borne, and the ligamentum teres is not stretched, but is still more relaxed than in the erect posture. Even in the position of "stand at ease," when the weight is borne upon one limb and the opposite side of the pelvis is lowered, the other limb being placed upon the ground slightly flexed, the movement now being equilvalent to that of *ad*duction of the weight-bearing limb, though the ligamentum teres is less relaxed than in the former position, and is also less relaxed than in the erect posture, still it is not tight; and the body is slung, not upon the ligamentum teres, but upon the thick and strongly resisting upper portion of the anterior ligament of the hip. The use of the ligament the Professor believed to be, as he had stated in his work, to assist in bearing weight when the limb is placed upon the ground partially flexed and adducted, when the capsule of the hip is comparatively relaxed, and when, if the body be overweighted, dislocation is most likely to occur. In estimating, however, its value, even in this position, it must not be forgotten that several instances have occurred, some of which are noted in Meckel's *Archiv*, vi. 341, in which the ligament was wanting without its being known that any inconvenience had resulted from its absence. In dislocation, too, it must be severed, and it is highly improbable that it ever unites. It has been found, indeed, ununited. Still, the loss of it does not appear to be much felt. With regard to other mammals the ligament, as stated in the paper, is commonly absent when the lower limbs do not bear much weight, and also when they descend vertically from the pelvis. The Professor had, however, pointed out in the *Journal of Anatomy*, vol. iii. p. 312, that it is present in the rats. In most mammals in which it exists the dimple or furrow or angular depression which it occupies in the head of the femur is oblique, as in man, indicating its tension, in them as in him, to occur in the semi-flexed position of the joint. There were other points to which the professor took exception, but the important one was this of the position of the joint in which the tension of the ligament takes place.

Mr. Savory, in reply, remarked that he quite agreed with Professor Humphry that, if he were wrong as to the assumption of the ligament in the erect posture, his view fell to the ground, but he could not agree with the professor as to what really is the erect posture. The skeletons in museums are commonly articulated wrong, and give too much inclination to the pelvis, and he thought Professor Humphry was in error on this point, and that if the ligament be examined in the strictly erect posture it will be found tight, or more nearly so than the professor admitted. He added that by applying his view he had generally been able to judge from the direction of the limbs in well-articulated specimens of animals whether the ligament had been present during life or not. Still there were some exceptions, among the most notable of which was the difference between the ostrich and the emeu. In the former it is large, whereas in the emeu it is absent. Yet, though he had visited the latter animal in the Zoological Gardens, and examined its posture and movements with reference to this question, he had been unable to make out why it should thus differ from the ostrich.

Materia Medica and Therapeutics.

On Sulphide of Potassium, Sulphide of Sodium, and Sulphide of Calcium.

Dr. Sydney Ringer, Professor of Therapeutics in University College, London, calls attention to the value of sulphides, present in many natural waters, in abscesses, boils, and scrofulous sores. "The influence of the group," he says, "on the suppurative process, is easily made manifest. Thus when sulphide of potassium or calcium is administered, a thin, watery, unhealthy discharge becomes at first more abundant, afterwards diminishing, and throughout continues thicker and healthier, possessing indeed the characters of 'laud-

able' pus. The condition of the sore improves correspondingly, and its healing is promoted.

"The sulphides appear often to arrest suppuration. Thus in inflammation threatening to end in suppuration they reduce the inflammation, and avert the formation of pus. This effect is manifested when sulphur compounds are employed locally in acne indurata; but further on I shall speak more in detail concerning their employment in this eruption. The influence of this group is still more conspicuous after the formation of pus. They then considerably hasten maturation, whilst at the same time they diminish and circumscribe the inflammation. They promote the passage of the pus to the surface and the evacuation of the abscess. Their efficacy may be frequently demonstrated in cases of the following kind. An unhealthy child, from six to twelve months old, suffers from a slight sore-throat, perhaps occurring in scarlet fever or measles. The sore-throat produces considerable enlargement of the glands behind the angle of the jaw. The swelling, of stony hardness, may be sufficiently large to interfere with swallowing and to push the head on one side. Suppuration takes place, but is very deep-seated, and for a long time there is neither redness of the skin nor fluctuation, and the pus very slowly makes its way to the surface, so that a fortnight, three weeks, or even a month may elapse before the abscess bursts, or is fit to be opened, when a deep hole is left, with considerable induration around it. The pain and constitutional disturbance are so great that the child sometimes dies; and even if this termination is averted, the deep discharging hole heals very slowly owing to the indurated and unhealthy state of the adjacent tissues. If a tenth of a grain of sulphide of calcium, mixed with a grain of sugar of milk, is given in such a case every hour or two hours, the results are most striking. The swelling becomes smaller, the pus reaches the surface in four or five days, and when it is evacuated leaves a benign wound which quickly heals. The effects of these remedies are equally conspicuous in mammary abscesses, although in rare instances they appear temporarily to increase the pain—a remark which seems sometimes to hold good with respect to boils. But as a rule the pain is speedily mitigated. Singular to say, I have found these remedies of much less use in forwarding the maturation and expulsion of pus in indolent buboes, but my experience of their use in buboes has been but small.

"It may be urged that it is difficult to imagine how these remedies can produce effects so different and apparently opposite as the dispersion of inflammation in one case and the expulsion of pus in another: but poultices and hot fomentations certainly possess the property both of subduing inflammation and of preventing suppuration, and in other cases of hastening considerably the evacuation of pus.

"In boils and carbuncles these remedies yield excellent results. A tenth of a grain of sulphide of calcium, given every two or three hours, generally prevents the formation of fresh boils, while it lessens the inflammation and reduces the area of the existing boils, and quickly liquefies the core, so that its separation is much more speedy, thus considerably curtailing the course of the boil. Where the skin is not yet broken, and the slow-separating core therefore not yet exposed, the sulphides often convert the boil into an abscess, so that on bursting pus is freely discharged and the wound at once heals. These remedies meanwhile improve the general health, removing that debility and malaise ordinarily so markedly associated with these eruptions. In some cases, however, as in the deep-seated boils and abscesses of diabetes, they are powerless. In carbuncles the sulphides will generally be found equally serviceable, melting, as it were, the core into healthy pus, and so quickly expelling the dead and otherwise slow-separating tissue. In abscesses and carbuncles it is useful to apply belladonna over the inflamed part to reduce inflammation and allay pain. The skin should be thickly smeared with equal parts of belladonna and glycerine, and over this a poultice applied, renewing the belladonna each time the poultice is changed. Poultices, however, being liable to bring out a fresh crop of boils, one of the following plans should be adopted: Smear belladonna ointment some distance round but not over the boil, and then apply a poultice, the greasy application thus protecting the neighbouring tissues. Or, still

better, apply a belladonna or opium plaster on leather, with a hole the size of the boil, around the swelling, and through the opening smear glycerine and belladonna, covering all with a small poultice. The leather plaster efficiently protects the surrounding skin and averts the production of fresh boils.

"I have thought it worth while to mention these useful plans of protecting the boil; but it is scarcely necessary to observe that whilst investigating the effects of sulphides I have employed them alone, or at most sometimes using only a poultice. The good effects of sulphides are conspicuous in certain scrofulous sores not uncommonly seen in children. Scrofulous children during the first few months are sometimes subject to indolent abscesses in the cellular tissue which run a very slow indolent course. At first only a small hard substance is observable, no larger than a pea, under the skin, which is of natural colour, and movable over it. The small substances next suppurate and gradually enlarge, the skin becomes adherent to them, and changes in colour to red or even violet, while sometimes in their neighbourhood the smaller vessels become enlarged and even varicose. They may grow to the size of a florin, and when matured feel soft and boggy. After a time a small circular opening appears, not larger perhaps than a pin's head, through which escapes a thin unhealthy pus. If deep-seated, as the buttocks, or in fat children, there may be very little or no discoloration of the skin. The chief noticeable character then is the small sharply-cut opening, as if a piece had been punched out. These formations follow one another, and may continue to distress the child for months or years. In mild cases a few only may form, whilst in severe cases there may be at one time ten or a dozen in different stages of development. When they heal they leave a white, sharply defined, but not deeply depressed scar. On the administration every hour or two of a tenth or twentieth of a grain of sulphide of calcium, the following effects occur: New formations seldom appear, although for months or years the child may have been infested with them. Many of the abscesses, especially in a very early stage of development, dry up and disperse, others generally speedily come forward and discharge their contents, the pus being laudable, insead of thin and unhealthy. The abscesses already in an open state improve, their pus becoming healthier, and the wound healing speedily.

"In some cases, in addition to these subcutaneous formations, the bones also become affected. The phalangeal bones of the hand are most frequently attacked, but not uncommonly the metacarpal, and more rarely the metatarsal. Where the phalangeal bones are affected, one or several of the fingers become nodose. For a long time the skin remains pale and freely movable, but after a time suppuration ensues, when the swelling increases, the skin becomes red and painful, and, after a time, slowly softens at one point, remaining boggy for a considerable time before the abscess opens naturally. Then generally a little bone separates, or in bad cases the whole of the shaft comes away, leaving the epiphyses behind. When an opportunity occurs to examine these bones before suppuration sets in, the shaft is found considerably enlarged, very pale, and the cancellous structure infiltrated with a straw-coloured firm substance, whilst the epiphyses and their cartilages are healthy. Even an affection so severe as this may be considerably benefited by sulphides. Thus before suppuration has set in, or whilst it has made little way, they often remove the swelling, though large doses may be required. After much suppuration, their good effects depend in a greater measure on the amount of the disease of the bone. If the whole shaft becomes necrosed, of course the sore will not heal till this has been got rid of; but suppuration often occurs and yet but little, or perhaps none, of the bone dies. In such a case the sulphides hasten the expulsion of the pus, and if the skin is already broken before they are employed, they improve the character of the wound and the discharge, and the sore heals, leaving a sunken scar adherent to the bone, whilst the finger slowly assumes its natural proportion. Large indolent abscesses may form on the back of the hands or feet. These are similarly affected by the sulphides. Whilst these remedies are thus influencing locally these strumous formations and abscesses, the child's health greatly improves, although failing previously, in spite, perhaps, of the administration of cod-liver oil and steel wine. That the improvement is due to the

sulphide is shown by the fact that the amendment occurs where only this drug is administered. On prematurely discontinuing the sulphide, fresh formations are apt to appear, especially on the occurrence even of a slight illness; indeed, a severe illness will often excite a few fresh abscesses, in spite of the sulphides.

"The sulphides appear to me to exercise a very beneficial influence in suppurating scrofulous glands in the neck. Here again they hasten the elimination of the pus, and subsequently the cheesy scrofulous matter. After the abscesses have burst, and continued slowly discharging a scanty, unhealthy pus, and when the edges of the sores have become much thickened and indurated, these remedies render the discharge more abundant, thick, creamy, and healthy, considerably hasten the evacuation of the scrofulous matter, which prevents the healing of the wound, and at the same time softens the round indurated edges, so that the sore heals much more speedily. If small doses appear to affect these sores but little, larger doses, as half a grain or a grain, should be given several times a day, or even every two hours. I need hardly say that to compass the results described the treatment must be continued several weeks, for it is in vain to expect them to occur in a few days, when the sores have been discharging perhaps for months or even years.

"The topical effect of sulphur ointment, or of an ointment of the hypochlorite of sulphur, or, still better, of the iodide of sulphur of the Pharmacopœia, is most marked on acne indurata and acne rosacea. Here, again, the effects are twofold, and even opposite, according to the stage of the eruption. If applied at the very commencement of the eruption, as soon as the little hard knot is felt under the skin, further development is arrested, and the hardness speedily disappears. For instance, if smeared over the hardness just before going to bed, in the morning scarcely any induration will be felt, though after a time, perhaps from exercise, or the irritation from washing, much of the hardness may return, to be again removed by a renewed application of the ointment, so that in two or at most three days a papule that threatened to become of considerable size may be completely dispersed. When, however, the nodule has advanced further, and suppuration has set in, then the effects of the ointment are much like those of sulphides, administered internally, on boils. The ointment hastens maturation, limits the swelling and hardness, and thus considerably curtails the duration of the eruption. Nay, further, if rubbed over the skin it appears to check the formation of the acne spots. If rubbed over the nose and neighbouring parts of the face in acne rosacea its effects are often striking." Not only does it act as in acne indurata, but the hardened, swollen tissues become softened and reduced to a more natural state. I have found the iodide of sulphur likewise useful in bromic acne, reducing the eruption, or at least considerably lessening the size of each spot. In acne the ointment should be thickly smeared over the eruption night and morning.

"Any one who gives the sulphides a fair trial in the foregoing cases will, I feel confident, have reason to be gratified with the result."—*Lancet*, Feb. 21, 1874.

—

On the Physiological Action of Arsenious Acid.

Professor Boehm of Dorpat records in the *Archiv für Experimentelle Pathologie und Pharmakologie*, vol. ii. Heft 2, his own researches and those of his pupils, on the physiological action of arsenious acid. The experiments were conducted by S. Unterberger upon cats and dogs. On injection of a watery solution of arsenious acid into a vein, a gradual sinking of the mean blood-pressure occurs. The amount of sinking is in direct relation to the quantity of arsenic employed. This sinking is never preceded by an increase of the blood-pressure, and is only temporary when it owes its origin to small doses (0.005 to 0.03 gramme). At the same time, the pulse is rendered slow. These phenomena can be ascribed partly to paralysis of the abdominal bloodvessels, and partly to a diminution of the capacity of the cardiac muscles for action. The cardiac nerves in animals poisoned with arsenic exhibit normal relations. The vessels of the sympathetic areas are not paralyzed by the poison.

The action of this drug upon the intestinal canal was also studied. To arsenious acid is generally ascribed a local irritating action. The chemical reason

for this irritating action is quite unknown. This substance exhibits no special affinity either for water or for albuminous bodies. The action of this drug was studied in similar animals (dogs of the same size, age, weight, etc.) and its effects contrasted according as it was introduced by the mouth or by injection in solution into the circulation. When one has before him two similar animals which have been poisoned with arsenic, it is impossible from the *post-mortem* appearance to say which of the two animals has received the poison by the stomach or through the blood. Not only so, but the phenomena during life are similar, and the only difference is that the smallest lethal doses when given by the mouth, are not sufficient to kill a similar animal when injected into a vein; and that in the latter mode of poisoning, death always occurs somewhat later than in poisoning through the stomach.

After death, no matter how the poison was introduced, the mucous membrane of the stomach throughout its whole extent was tinged dark red, was considerably swollen, and presented a velvety appearance. The redness was always confined to the most superficial layers of the mucous membrane. In the serous membrane of the stomach, beyond a very pronounced filling of the vessels, numerous large ecchymoses were generally present; loss of the substance of the mucous membrane was never observed. The degeneration of the gastric glands, described by other authors in the rabbit, were not found. Essentially different was the appearance throughout the whole length of the intestinal canal. The mucous membrane was covered throughout its entire extent by a yellow-coloured, jelly-like, but still consistent membrane about one millimetre thick. Microscopically, this membrane appeared to consist of innumerable pus-cells, embedded in a structureless material. This membrane could be removed, when the mucous coat was exposed, generally filled with small point-like ecchymoses. The villi were greatly swollen, and were devoid of epithelium over their entire surface, and numerous pus-like cells were also embedded in their substance. In the other organs, nothing remarkable was found. The liver and kidneys had never undergone fatty degeneration. Ecchymoses in the endocardium of the left ventricle were constant, often also in the other serous membranes. These results are not favourable to the assumption of a local irritating action of the poison. The authors hold as unexplained the action of arsenic on the gastro-intestinal tract. Schmiedberg remarks the resemblance of the action of sepsin to that of arsenic, in that the former exhibits no local action. In the intestine, only traces of arsenic were found on analysis of its contents by the Marsh method.—*London Med. Record*, July 8, 1874.

Medicine.

On the Presence of Abnormal Cells in the Blood in Relapsing Fever.

In the course of the long and severe epidemic of relapsing fever which prevailed in Berlin in 1872 and 1873, Prof. Ponfick, of Rostock (*Centralblatt für die Medicinischen Wissenschaften*, May 23, 1874), undertook a large number of examinations of the blood. The positive results which he derived therefrom are calculated to open up a new series of points of view both in regard to the pathology of the blood itself, and in no less a degree to the process of relapse.

On the essential character of the facts in question Prof. P. has already commented in a communication which he made last year to the Surgical Congress, regarding a disorder of the marrow of bones peculiar to relapsing fever (*Berliner Klinische Wochenschrift*, 1873, p. 439). On that occasion, however, it was not so much the condition of the blood, as the surgically interesting affection of the bones, that formed the principal subject of his communication; and hence neither the signification nor the conjectured mode of origin of these anomalies of the blood could be discussed.

In the mean time, a further circumstance occurred which has led him to return to the subject. When, led by Obermeier's discovery, he proceeded to test his first observations during life, and, partly in concert with him, to complete them, he found in certain cases quite the same changes in the blood of living persons suffering from relapsing fever.

It has already for a long time been known to physiologists that in the blood of the splenic veins, besides the ordinary colourless corpuscles, larger forms are also found, which in their whole appearance agree with certain elements of the pulp, and are further characterized by an abundance of fatty granules. That these forms may, under pathological conditions, undergo an extraordinary increase, becoming unusually large and being transformed more or less completely into granular cells, Prof. P. has proved in a number of diseases, starting from experimental research on animals. ("On the Sympathetic Diseases of the Marrow of Bones in Internal Diseases," Virchow's *Archiv*, vol. lvi.)

When extremely fine insoluble pigment-granules are injected into the current of blood, these pass at once into the various tissues, especially the pulp of the spleen, and finally disappear, within two days at latest, from the circulation. On the other hand, from this time there are found a number, varying with the amount of injected particles, of large and small lymphoid cells in the splenic vein, and also with the portal and hepatic veins; they are thickly filled with pigment-granules, and altogether remind one of granule-cells. (*See* "Studies on the Fate of Granular Colouring Matter in the Organism," Virchow's *Archiv*, vol. xlviii.) This presence of artificial granule-cells in the blood, which has been confirmed in all points by Hoffmann and Langerhans ("On the Retention of Cinnabar injected into the Circulation," Virchow's *Archiv*, vol. xlviii.), appears so much the more remarkable, that it may be observed even after weeks and months have elapsed.

In reference to this point, the next thing to be done was to examine the condition of the blood of the splenic vein in all the various diseases which are attended with acute swelling of the spleen, especially those in which the introduction of very minute foreign bodies into the blood-current might, with more or less probability, be assumed, viz., the infectious diseases. In fact, it was found that, both in all the splenic swellings in infectious diseases, and also in a less degree in those met with in simple inflammatory diseases, the abnormal constituents of the splenic pulp—blood-corpuscles, pigments, and granule-cells —were found alike in the blood of the splenic vein, in proportions corresponding with the disease under observation. There were thus established a complete analogy between the morphological condition of the splenic pulp and the blood leaving it, both in infections and simple enlargement of the organ. In the absence of the connecting link of the chain of observation, we must for the present abstain from deriving from the morphological analogy one relating to pathogeny.

In correspondence with the size of the splenic tumour in relapsing fever, and the extraordinarily large number of pulp-cells, which here undergo fatty and pigmentary change, Prof. P. found in this disease a remarkably large number of these also in the splenic blood. Extended research, however, showed that in high degrees of splenic enlargement their occurrence was not, as in other cases it always is, limited to the portal and hepatic veins, but that they can be found, although in smaller quantity, in other parts of the circulation. In individual cases these cells were so widely diffused through the whole body, that specimens of them could be detected in every drop of blood drawn from any part of a patient.

Such a contamination of the mass of the blood, not by fluid but by solid substances, by cellular elements foreign to it, has hitherto, so far as Prof. P. knows, been ascertained only in relapsing fever; and so far is practically of pathognomonic importance. For, in the intervals between the attacks, when Obermeier's filaments are constantly absent, their presence will remove any doubts as to the true nature of the disease.

Whether it be really correct to assume that all these cells have their origin in the splenic pulp, cannot at present be exactly determined. In the mean time it seems to Prof. P. as if this explanation is in harmony, for the most part, with facts

otherwise ascertained, and especially with the results of experiments. Under this supposition, the general diffusion will have to be explained by assuming that, in consequence of the extremely profuse development of the cells in the pulp, such as generally accompanies the highest degree of splenic enlargement, they pass into the blood-current in such quantity, that the vascular regions, which in other cases remain free from them, become more and more inundated. Indeed, the splenic tumour in relapsing fever surpasses in circumference all others of acute origin; and it attains an extraordinary size in those cases especially in which a change in the blood can be detected during life.

Along with these granular masses Prof. P. has also, during life, sometimes found in the blood other foreign cells, which must not be confounded with them. The best marked specimens of these are distinctly to be recognized as endothelial cells from the vessels; but, as they have always undergone more or less fatty degeneration, they may, when this process has gone on to an extreme degree, present a certain resemblance to the cells already described. But, while the endothelial cells appear flat, or at the most lentil-shaped, the others are always distinctly globular or elliptical.

This hitherto unobserved occurrence within the living blood-current of endothelial cells which have undergone fatty degeneration, reminds Prof. P. of an observation which he made some time ago (*Deutsche Klinik*, 1867, Nos. 25 and 26), that extensive fatty change of the endothelium of the bloodvessels occurs under the influence of certain infectious diseases. In relapsing fever, this change probably reaches so high a degree that the changed cells must be thrown off in large quantities, and be carried into the blood-current. In other diseases, the destructive process appears to be confined within too narrow limits, or to go on too slowly, to allow the separated cells to be detected in the examination of a small quantity of blood.

According to these observations, we have to recognize three sources of contamination of the blood in relapsing fever. While the occurrence of Obermeier's filaments may be well referred to importation from without, the presence of the cells of both kinds must be regarded as arising from internal or self-infection. Further researches on the blood will have to be made, to ascertain the further fate of these swimming cell-corpses; and the question will especially have to be investigated, whether they may not of themselves produce new disturbances, especially embolism and its results.—*London Med. Record*, Jan. 24, 1874.

—

On the Use of Trimethylamine in the Treatment of Acute Articular Rheumatism.

Dr. G. Peltier (*Progrès Médicale*, Nos. 12, 17, 19, 20, 22, and 25. 1873, and No. 2, 1874) discusses the whole of the recent observations on this subject (forty-eight in all), and analyzes them. Taking them altogether, it appears that of forty-eight cases treated by trimethylamine, twenty-two cases were cured in less than eight days, eighty-one in eight to fifteen days, seven in fifteen to thirty days, and eight have not appeared to be much, or at all, influenced by the treatment. He believes that no other tharapeutic treatment can claim such results, and he entertains the conviction that trimethylamine will render henceforth still more marked advantages, when pure trimethylamine only shall be employed, or when only hydrochlorate of trimethylamine is used, a substance of which the dose is much more easily defined. His final conclusions are these: 1. From the point of view of its chemical action, it is preferable to employ in medicine the hydrochlorate of trimethylamine. 2. From the point of view of its physiological action, trimethylamine is a slight excitant of the skin, a caustic of mucous membrane, a sedative of the nervous system, hyposthenic of the arterial system; it diminishes the amount of urea in the urine. 3. From the point of view of therapeutic action, trimethylamine has hardly been employed in anything else than in articular rheumatism; it calms the nerves, relieves the congestion of the articulations, and diminishes the fever. On the whole, it appears to be the drug which, up to the present time, has given the best results.—*London Medical Record*, March 18, 1874.

The Urine in Addison's Disease.

Rosenstirn (Würtsburg) has carefully and uninterruptedly, for many days, examined (*Virchow's Archiv*, Nov. 1872) the urine of two patients in Bamberger's clinic, who were affected with Addison's disease. Both were men, one seventy-two and the other sixty years of age. Their appetite was good, and their diet was regulated in the following manner: In the morning, soup; at noon, soup, vegetables, and meat; in the evening, soup and meat. Notwithstanding the richness of this diet, Rosenstirn has found a considerable diminution in the quantity of urea excreted, which never exceeded twenty-four grammes in the twenty-four hours. A few times it fell to thirteen grammes, while in three healthy individuals, aged respectively twenty-five, sixty-seven, and eighty-two years, submitted to the same regimen and examined comparatively, the quantity excreted in the twenty-four hours never fell short of twenty-six grammes.

Another notable fact is the sensible augmentation of indigo in the urine of patients affected with Addison's disease. In one of the patients, Rosenstirn found the mean to be 64.5 milligrammes in 100 of urine, and in the other 75.3; that is, eleven or twelve times the normal quantity.

Thus, in Addison's disease, there is a very considerable diminution in the activity of the molecular changes. Is this owing to alteration in the suprarenal capsules, so richly supplied with nerves? Has the pigment deposited under the skin its origin in indigosuria? Is it admitted that the diverse symptoms occurring in Addison's disease are the result of a blood-affection arising from its incomplete purification? This hypothesis has tended to establish a comparison between the etiology of these accidents and uræmia, with which the last stage of Addison's disease has much similarity.—*New York Med. Journ.*, from *Lyon Médical*, April, 1873.

On Sugar in Œdematous Fluids.

C. Bock (*Reichert und Du Bois-Reymond's Archiv*, 1873, part v.) says that it is well known that a substance capable of reducing oxide of copper has been tolerably constantly found in the cerebro-spinal fluid, and in the fluid of echinococcus sacs. This substance was regarded by M. Bernard as sugar. With special reference to this substance, the author has experimented on œdematous fluids. In cases of anasarca, a lancet-shaped canula was introduced through the skin, and clear drops of fluid, quite uncontaminated and free from blood, could be caught in a vessel placed for the purpose. In favourable cases, 1000 cubic centimètres could be obtained daily. In the different diseases which caused the œdema, the fluids differed a little from each other in their physical properties. The fluid was clear, like water, and only seldom was a yellowish or greenish tinge observed, chiefly when icterus was present. Spontaneous coagulation from fibrin did not occur in any case, even after long standing, or by the addition of defibrinated blood. The reaction was always more or less alkaline; the specific gravity from 1005 to 1010, and this independently of the cause of origin of the œdema. Urea was constantly found in small quantities (.1 to .2 per cent.) To test for sugar the albumen must, of course, be removed. The albumen varied in quantity from .06 to .9 per cent. In most cases it was .1 to .2 per cent. The author employed the various tests for sugar in the most careful manner, and arrived at the conclusion that the substance was really sugar. Quantitative estimations were made with Fehling's solution. In a case of chronic nephritis with pronounced dropsical symptoms, the clear fluid had a specific gravity of 1009, contained only traces of albumen, and .04 per cent. of sugar; in another similar case .048 per cent. was obtained. A patient with heart-disease showed .077 per cent. sugar in his œdematous fluid. Often no sugar was found, but this became more rare the more expert the author became in the investigation. The investigation must always be made on fresh fluid. The author has also found sugar in pleuritic effusions. These results have been compiled by Professor F. A. Hoffmann, from the papers left by Dr. C. Bock at his death.—*London Medical Record*, May 13, 1874.

On Auditory Vertigo (Ménière's Disease).

Several important articles have recently appeared on what is variously called "auditory vertigo," "vertigo ab aure læsâ," or, from its discoverer, Ménière's disease; the most recent and one of the most able is by Charcot.[1]

If a patient have an attack of giddiness, with vomiting, especially if his vomit contain bile, it frequently happens that a superficial view is taken of his case, and that an associated aural trouble is carelessly overlooked or disregarded. Charcot says that auditory vertigo may be erroneously put down to apoplectic cerebral congestions, to *petit mal*, but that it is most often attributed to gastric disorder. Indeed, Trousseau says that vertigo "ab aure læsâ" greatly resembles vertigo "a stomacho læso." In this country auditory vertigo is very often, we believe, ascribed to affection of the liver; there being, however, no very good reason for this diagnosis, mostly, indeed, only the inconclusive evidence in favour of it that bile is brought up; but so it is in all urgent vomitings, however caused. Whatever view we may take of the cause of a paroxysmal vertigo, nothing justifies us in neglecting investigations for aural trouble or in ignoring them when found. It would be as absurd to ignore the hemiopia and other visual trouble preceding the headache and vomiting of *migraine*. This disease, often passing under the unfortunate name of "sick-headache," by the way, is now, thanks, in this country especially, to Anstie, Latham, and Liveing, shown to be really a nervous affection, and not a mere stomach-and-liver affair, and thus not one requiring remedies exclusively addressed to gastric and hepatic derangement.

The case which Charcot relates is a very important and a very remarkable example of Ménière's disease. But before we speak of it, we may give a brief account of some of the symptoms of that affection.

The patient has, usually, a sudden attack of giddiness, accompanied by reeling gait, great pallor of the face, free perspiration, feeling of fainting, or even actual loss of consciousness; he feels sick or actually vomits. At the same time, there is usually a great noise in one or in both ears; it may be that the patient's hearing has been good before, and that he is afterwards deaf, or it may be that there has been for a long time some kind of aural trouble. We speak only of the prominent symptoms, of the giddiness, the reeling, and the affection of hearing. The symptom vomiting, being obtrusive, cannot be disregarded nor underrated, and therefore need not be commented on; there may, however, be only nausea.

The important matter is to show how the aural trouble is associated with the vertigo and reeling. We use the very general expression "aural trouble" because, as we shall see, the kind of affection of the ear varies very much, although possibly in the production of auditory vertigo the immediate cause is some affection of the labyrinth.

For our purpose, the labyrinth may be taken to consist of two functional parts, the cochlea and the three semicircular canals; these two parts have corresponding divisions of the auditory nerve. It seems to be agreed that the cochlear division is for the perception of musical sounds. As to the function of the three semicircular canals, or, speaking strictly, of their contents, there is a difference of opinion. Helmholtz's view is that they serve in the appreciation of ordinary sounds. The view taken by Goltz is that "being subservient to the maintenance of poise, they are, as it were, the organ of the sense of equilibrium of the head, and thereby of the whole body." (Knapp's *Archiv of Ophthal. and Otol.*, vol. ii. p. 24.) There are certainly facts supplied by experiments on animals, the well-known experiments of Flourens, which show that the canals have something to do with the regulation of movements, chiefly those of the head. Vulpian (*Physiology of the Nervous System*) tells us not only that injury of them produces disorderly movement, but that each canal—judging from the fact that a particular disorderly movement follows lesion of each—has some special duty, serves to regulate some particular group of movements of the head, and thus indirectly to regulate some group of movements of the whole body in locomotion.

[1] Le Progrès Médical, Jan. 24 and 31, 1874.

"Two of the semicircular canals are vertical, the third is horizontal. In this pigeon, the canals of which have been carefully exposed, I break the horizontal canal on one side, then that of the other side. The animal gives obvious signs of pain, and his head moves violently from right to left and from left to right, following a horizontal line; at the same time the eyeballs are agitated, and you can observe further that the animal turns itself round upon its vertical axis. In this other pigeon, I cut the inferior vertical canal on each side, and I determine movements of the head from above downwards as impetuous as the preceding ones; then the animal throws its head backwards; it shows, as you see, a tendency to fall backwards. I cut now the upper vertical canal on each side on this third pigeon. The vertical movements of the head immediately come on; they are very violent and analogous to the preceding ones. Nevertheless you see that the animal tends to fall forwards, and that to stop these movements, it ends by leaning the top of its head forwards on the ground."

It is right to mention that Dr. Brown-Séquard has said, "I have ascertained that the phenomena observed in experiments on these canals, do not depend on the section of these canals, as this operation may not cause these phenomena, but that they are the results of irritation of the auditory nerve, from the dragging on it by the membranous semicircular canals at the time when we divide them."

We must bear in mind the different positions of the canals, in order to understand Goltz's hypothesis. Goltz thinks that the terminations of the nerves in the canals are in health excitable by pressure or tension, as the tactile nerves of the skin are. The excitation is by the pressure of fluid, which pressure, according to him, varies, for physical reasons, with the position of the head. The central nervous system, at any given time, receives information as to the position of the head from the nervous contents of that canal, which being the most dependent is consequently most excited by pressure. If such be the physiology of the canals, the interpretation of the result of damage of them follows easily. When one or more of these canals is damaged, the central nervous system is wrongly informed as to the position of the head. We may suppose that this results either because in sudden lesion an exaggerated impression is transmitted to the brain from the over-excited canal, or because as a consequence of very extensive injury of a canal its nervous contents cannot be excited at all, and thus there is no impression for transmission. In consequence of the centre overacting on wrong information, or underacting because it is without information, certain factors in the locomotor movements will be out of harmony with the rest. Thus there will be reeling. There is, however, in slight cases, not reeling, but simply vertigo. However, the reasoning is the same; vertigo (as is plainly seen in the study of cases of palsy of ocular muscles) is a motor symptom; it is, Dr. Hughlings Jackson believes, a rudimentary or incipient disorder of co-ordination of locomotive movements; it is frequently, however, spoken of as a cause of reeling. The disturbances of equilibrium are, Goltz thinks, temporary, when the semicircular canals are injured on but one side. Goltz's hypothesis at first glance appears to refer only to movements of the head. He shows, however, that the movements of the body are dependent on, perhaps we may say "led by," those of the head. This view seems to us to be supported by the effect of section of the muscles of the back of the neck in dogs (in the operation to expose the occipito-atloid space); the result is, Magendie and Bernard state, disorderly movements like that of drunkenness. Bernard[1] finds, too, that, although section of the muscles of the back of the neck of pigeons does not produce disorderly walking, it destroys their chief mode of locomotion; they cannot fly.

These last-mentioned facts have a still wider bearing. The auditory nerve, as Lockhart Clarke has long since pointed out, sends a large division to the cerebellum. According to Meynert, the whole of it is lost in the cerebellum. It is a fair speculation, then, that the nervous centres of which we have metaphorically spoken as being wrongly informed, in cases of lesions in the semicircular

[1] Leçons sur la Physiologie et la Pathologie du Système Nerveux, vol. i. p. 497.

canals, lie in the cerebellum, or, in other words, that the divisions of the auditory nerves in the canals are afferent to centres in the cerebellum for certain movements of the head, for those which take the lead in and regulate locomotion. This would accord with the generally accepted view that the cerebellum is the organ for the co-ordination of movements of locomotion; it matters not whether the cerebellum be disturbed from actual disease in it, or be disturbed by irritation propagated to it from without. The word co-ordination is, however, not a safe one to use, for there are still some who speak of a "faculty of co-ordination," and even of a centre for it. Dr. Hughlings Jackson believes that the cerebellum is only to be considered the organ of co-ordination of movements of locomotion, in that it represents more especially the locomotive movements of the spine (head and trunk). The disorder of co-ordination of movements of locomotion, actual in the reeling, or rudimentary as in vertigo, from disease of this centre, is owing, he considers, to paresis of the spinal muscles. Hence the significance of the effect of section of the muscles of the back of the neck, in effect a paralysis of them, in the above-mentioned experiments of Magendie and Bernard. The seemingly erratic action of the legs in some cases of cerebellar disease, is for the preservation of balance consequent on the spinal paresis; the patients keep their legs wide apart, and, so to speak, their legs run after the trunk to "under-pin it in its various over-inclinings from side to side and from back to front." The disorderly walk which occurs early in some cases of disease of the cerebellum is a reel; it is a walk like that of a drunken man; so also is, so far as one can judge by reports of patients and observation of a few cases, the walking of patients during the paroxysms of Ménière's disease. The speculation is that the last link in the morbid chain in Ménière's disease is disorder of the centres in the cerebellum, which especially empower the muscles of the neck and trunk. [The only statement of the hypothesis, that the vertigo and reeling in cases of cerebellar disease depend on paresis of the spinal muscles, which I can find, is contained in Niemeyer, who quotes Immerman (*Humphreys and Hackley's Trans.*, vol. ii. p. 188 and p. 244). At first glance it seems an indequate explanation of the disorderly co-ordination of reeling. But we must take note of secondary effects of paralysis; these are best seen in cases of palsy of oculo-motor nerves. There no doubt are, in cases of spinal paresis, indirect results of this paresis analogous to the "erroneous projection" and "secondary deviation" in cases of paralysis of the ocular nerves.—J. Hughlings Jackson.]

So far we have said nothing of the associated deafness. This, as Knapp urges, shows that the lesion in case of Ménière's disease is not limited to the semicircular canals. He brings forward special evidence on this matter. He points out that not only is there partial deafness, but that there is deafness for certain musical tones, which, borrowing the form of an expression of ophthalmologists, he described as "a contraction or limitation of the field of audition." This is, he thinks, clear evidence that the cochlea itself is involved also. Besides the positive value of this conclusion, it is negatively valuable as showing, to use Knapp's words, that Ménière's disease "is neither an affection of the trunks of the auditory nerves, nor of their centre in the brain." (Op. cit. p. 277.)—*London Medical Record*, April 22, 1874.

(*To be concluded.*)

General Paralysis supposed to be of Syphilitic Origin cured by Iodide of Potassium.

Dr. Buzzard exhibited, at a late meeting of the Clinical Society of London, a patient, aged 46, who had recovered from an attack of general paralysis, supposed to be of syphilitic origin. The man had been brought to the National Hospital for Paralysis on January 8, 1873, with paralysis of both facial nerves, of all four extremities, and incomplete paralysis of respiration, deglutition, and of the right sixth nerves, together with general cutaneous anæsthesia. His condition was so grave that he was at once admitted. He could not lie down, and could only take fluid nourishment by spoonfuls. His attack had

commenced one month previously with numbness in the finger-ends, and weakness of the legs and arms, which progressed so rapidly that in three days he could not leave his chair. One week after the onset his speech became thick, and he felt a sense of constriction round the waist. After another week his powers of deglutition and breathing were involved. He continued to get more and more feeble, so that when admitted he could not move his legs, and had only the slightest power of using the muscles of his thighs and arms. He was permanently lame in the right leg, from an attack of infantile paralysis in childhood. His health previous to the attack had been uniformly good. There had been no injury, nor diphtheria, nor exposure to cold; and the attack was unaccompanied by fever, pains, or muscular contractions. His pulse on admission was 76, and his temperature 99°. He had suffered from a chancre and bubo fourteen years before, which were not followed by sore-throat or skin-eruption. On admission he was placed on a water-bed; beef-tea, eggs, and wine were ordered, and ten-grain doses of iodide of potassium given three times a day. Within twenty-four hours he had improved, and in a week could lie down, could close the right eyelid to some extent, and could swallow solid food. The muscles of the legs, in which contractility to faradaism had been abolished, now responded slightly to the induced current. In four days more the right eye could be completely closed, his breathing was no longer difficult, and his limbs were regaining power. At the end of January he could close both eyes; and in a few weeks more all the facial muscles had recovered. Towards the end of March he could stand with assistance, and on May 6th he could walk with some help. On May 21st, four months and a half after admission, he was discharged, and a week or two afterwards resumed his employment, which he has since regularly carried on. At the present time he shows no traces of his attack. His treatment consisted of iodide of potassium in gradually increasing doses, amounting at last to sixty grains three times daily, and this was followed by subcutaneous injections of the chloro-albuminate of mercury for two months. (For the formula, see *Lyon Méd.*, June, 1872.) Dr. Buzzard was of opinion that the attack was due to syphilitic thickening of the dura mater about the basilar process and upper part of the spinal column, causing pressure upon the pons Varolii and spinal cord.

In reply to Mr. Spencer Wells and Dr. Moxon, Dr. Buzzard said that he had tried the subcutaneous injection of mercury in this case, because he thought that if an eligible solution could be discovered the injection of a few drops by a fine syringe would be preferable to the nasty method of inunction, or the troublesome one by calomel vapour-bath, in cases in which administration by the mouth disagreed. The quantity of mercury employed would, moreover, be smaller, and determined most accurately. He chose the chloro-albuminous solution of Dr. Staub, because that had been described as not causing abscesses, the great objection to all others. In three or four cases in which he had tried this liquid, although a good deal of local irritation had sometimes followed, there had been no suppuration.

Mr. Brudenell Carter asked whether the action of the iodide of potassium was thought to prove the syphilitic character of this case.

Dr. Buzzard said that his diagnosis was founded partly upon the character of the disorder, which was evidently due to pressure upon nerve-substance, and not disintegration of it. The source of such pressure would almost necessarily be in the membranes; and the mode of onset and progress of this case were just what would be occasioned by a thickening of the dura mater such as syphilis would cause, or by the growth of gummata. Other sources were excluded by the history; and the only antecedent in the case was a syphilitic infection. The clinching point was the immediate improvement and rapid complete recovery of the patient under specific treatment.—*Lancet*, March 28, 1874.

—

On Phosphorus in Melancholia.

Dr. S. W. D. Williams, the Superintendent of the Sussex Asylum, gives a *résumé* of half-a-dozen cases of melancholia treated by phosphorus (*Journal of Mental Science*, April, 1874). The medicine used was in the form of the

pills prepared by Messrs. Kirby & Co., which are stated to contain each the thirtieth part of a grain of pure phosphorus. The first case was a male, aged fifty-one, agricultural labourer, no hereditary taint, but father given to drinking; admitted September 6, 1873. The attack was pure melancholia, uncomplicated with delusions, and had been coming on for twelve months. Sleeplessness was at first treated by chloral, which was changed for opium and chloric ether. He then began to refuse his food, and, on November 12, was ordered one phosphorus pill night and morning. In a few days the depression was less, and in a month had quite left him. The second case was that of a female, aged thirty, who recovered from two attacks of melancholia, relapsing almost immediately. She was then put on phosphorus; the third attack only lasted twenty-seven days, and she has now (two months) remained cheerful and well. The third case was also a female, aged fifty-four. The disorder was hereditary, and had lasted five months. She had a constant desire to commit suicide, but no delusion. Phosphorus was given, and persevered with for seven weeks, without any benefit. Opium was then given, with immediate result, and recovery took place. In the fourth case, a female aged thirty-three, with a strong suicidal and homicidal impulse, phosphorus was prescribed after she had taken iron and cod-liver oil. She improved so as to be able to employ herself in the laundry, but relapsed, and refused to take the pills. Since then she has become worse. The fifth case was a female, aged twenty-seven, who was admitted in an attack which was said to have lasted ten days. Chloral and opium were tried without effect. After taking phosphorus a week she had much improved, and there was every prospect of recovery. The last case was a male patient, aged thirty-nine, who had been intemperate both in smoking and drinking. He suffered from acute mania, which had supervened upon symptoms of locomotor ataxy. The latter increased, but the mania passed off, and was followed by melancholia. Phosphorus was given, and the mental symptoms disappeared, but there was no improvement in the locomotor ataxy.

Dr. Williams remarks that in all these patients there was noticed within a few days of beginning the phosphorus a peculiar coated state of the tongue, not unlike the silvery tongue which follows the prolonged use of arsenic, as stated by Dr. Eames. No toxic or other disagreeable symptoms were observed. —*London Med. Record*, July 1, 1874.

—

Laryngeal Phthisis.

Most of us are aware of the difference of opinion which exists amongst pathologists in respect to the relation of chronic disease of the larynx to phthisis of the lungs, some describing the one, and some the other, as the primary affection. The question has lately been subjected to experiment by Sommerbrodt, who gives a description of the results he obtained, and the conclusions at which he has arrived, in the *Archiv f. Experiment. Pathol. u. Pharmac.*, 1873, vol. i. page 264, and *Centralblatt*, 1873, September 27, No. 44. Sommerbrodt experimented on rabbits by inserting a glowing wire in the larynx and upper part of the trachea and there leaving it, where it acted as a chronic irritant, causing death in from four to ten weeks. On examination at various periods, the following was discovered to be the sequence of events: Some eight days after the operations, small cheesy centres were found in the subcutaneous tissue near the wound. The mucous membrane of the trachea at the same spot was ulcerated, and the cartilage laid bare. The inflammation thereupon spread more or less rapidly along the air-passages to the finest bronchi, thence to the peribronchial tissue, and finally into the pulmonary alveoli. It was easy to trace with the microscope the inflammatory process advancing from the neighbourhood of the bronchi into the alveolar septa, by the thickening of the latter, and their infiltration with lymphoid cells. At the same time there was found combined a desquamation of the intra-alveolar epithelium (Buhl's *peribronchitis purulenta* and *desquamative pneumonia* without purulent softening of the tissue). The experimenter concludes that chronic inflammatory irritation of the trachea leads to purulent peribronchitis, and thence to phthisis. Sommerbrodt was able to show by crucial experiments that

the pulmonary disease was not secondary to the infectious centres, or cheesy masses described as occurring subcutaneously at the seat of wound. The lung disease which is secondary to these or other cheesy masses in rabbits, is of the nature of a caseous lobar pneumonia, without the characters of bronchial affection above noticed. It is worthy of remark that dogs similarly operated on never gave the same result—never died of phthisis. Their "constitution" is, therefore, entirely different from that of rabbits.—*Med. Times and Gaz.*, Dec. 13, 1873.

—

On the Course of Severe Lung-Affections during Pregnancy.

Dr. A. Wernich (*Beiträge zur Geburtshülfe und Gynäkologie*, vol. ii., part 3, 1873) believes, from his own experience, that phthisis runs a milder course during gestation; while the reverse is the case during the puerperal state. In acute pneumonia, the excess in mortality arises from the pressure of the gravid uterus on the diaphragm impeding the movements of respiration and retarding the circulation of the blood through the lungs, throwing more strain on the right side of the heart. In pneumonia, death takes place chiefly from insufficiency of the heart, and in pregnant women with the appearance of œdema of the lungs, according to Jürgensen (*Sammlung Klinischer Vorträge*, No. 45), emptying the uterus of its contents would, by relieving the pressure off the abdominal vessels, cause an increased flow of blood to the heart, coupled with the freer movements of the diaphragm, burden the right side of the heart still more, and augment the œdematous state of the lung. The treatment is to strengthen the contraction of the heart by the internal administration of digitalis, and unloading the right side of the heart by venesection, when the dyspnœa and distress are intense. The author relates two cases where he extracted blood; in one by venesection, in the other by cupping. In the first case (venesection) the relief was immediate, the patient falling asleep directly. In both it seemed to induce labour, signs of uterine contraction being present before the operation. Living six months' children were brought, by the aid of instruments, into the world. In the case of venesection the patient shortly afterwards collapsed and died. In the other, the patient wandered in her mind, saw strange figures, exhibiting the usual symptoms of mania from anæmia of the brain. Digitalis and stimulants were given with good results, the patient making an excellent recovery. In a third case, blood was not extracted; sinapisms and water compresses alone being used, with the administration of digitalis. The patient did well, without miscarrying. Seeing that extraction of blood brought on miscarriage, the object to be avoided, the question is, should it be done? The writer believes in all cases where the symptoms are very urgent and not relieved by other treatment, the proper course is to bleed (Gusserow mentions a case where the result was good without bringing on labour); and in case of collapse, to transfuse blood from the arm of another. That both children were born alive, he wishes particularly to note.—*London Medical Record*, March 18, 1874.

—

On a Peculiar and Dangerous Affection of the Respiratory Organs in Children.

Dr. Finch (in a pamphlet published by Harvey, Colchester) relates five cases of a laryngeal affection in children, which he attributes to the pressure of an enlarged thymus gland upon the recurrent laryngeal nerves, causing paralysis of the dilators of the glottis. The symptoms observed were persistent hoarse stridulous respiration, lasting with more or less complete remissions for months, or even years. There was an absence of all febrile symptoms. In all the cases a projection of the upper portion of the sternum was noted, and in three some enlargement of the cervical glands. Two cases were fatal from the gradually increasing difficulty of respiration, and in one of these a *post-mortem* examination was made. The thymus gland was found to be greatly enlarged, occupying the upper portion of the anterior mediastinum, from the second intercostal

space to near the lower border of the cricoid cartilage. The lining membrane of the larynx and trachea was injected and darker than natural, and adhering to the lower half was much tough dry mucus. In the three remaining cases, recovery from a succession of intermittent attacks had taken place.

[Numerous cases of hypertrophy of the thymus gland have been recorded in which there was no spasmodic affection of the larynx; and it has been shown that the theory of Kopp, that "laryngismus stridulus," the so-called "thymic asthma," was dependent upon the irritation or pressure of an enlarged thymus, was incorrect, and that in the majority of cases of laryngismus no such enlargement of the gland exists. It is to be regretted that the relation of the enlarged thymus to the laryngeal nerves was not ascertained in the *post-mortem* examination recorded by Dr. Finch.]—*London Med. Record*, Aug. 12, 1874.

—

Treatment of Hooping-cough.

Dr. Mascarel states (*Bulletin Gén. de Thérapeutique*, June 30, 1874) that in his opinion hooping-cough depends on two elements—a nervous element and a catarrhal element. The nervous element resides in the inferior branches of pneumogastric nerves. This is so true that there is a form of gastric hooping-cough in which every attack of coughing is accompanied by vomiting. The catarrhal element has its seat at the orifice of the glottis and of the larynx, as well as through the whole extent of the mucous membrane, both aërial and digestive, receiving filaments from the two pneumogastrics, as is rendered evident by the masses of mucus of various kinds coughed up by children during and at the termination of their crises. If we once admit these two principles —a nervous element and a catarrhal element—we must act therapeutically against both; and as the nervous state is antecedent to the catarrhal state, we ought to act specially against the neurotic. Every morning between six and eight a minute dose of tartarized antimony should be given in solution in water. In children over two years of age, the antimony may be replaced by ipecacuanha. Every evening at the last meal a small pill may be given containing one-eighth of a grain of extract of belladonna, which may be gradually increased till five or six of the pills are taken at once Dr. Mascarel has tried this plan for from eighteen to twenty years, and has hardly ever known it to fail in relieving or completely curing the disease in three weeks The use of the belladonna should be gradually discontinued. An essential condition of success is to have the extract of belladonna pure, and one test of its purity is the appearance of a peculiar exanthema over the face and body of the child, which may so alarm the parents that it is prudent to forewarn them of its occurrence. This only appears, however, once in seven or eight cases, and its slight gravity is shown by its spontaneous disappearance in the course of a few hours. A second evidence of the goodness of the preparation is the dryness of the throat, which many of the older children complain of. Dilatation of the pupils is rarely observed, unless the remedy has been applied directly to the eyes. In cases where the cough is extremely violent and is accompanied by vomiting, when it may produce hernia and ecchymosis of the conjunctiva, the employment of emetics is contraindicated, and instead of them small doses of syrup of morphia, with a little ether, may be given, the use of the belladonna being continued. After breakfast, a few teaspoonfuls of strong coffee may be given with advantage. Dr. Mascarel does not believe in the beneficial effects of change of air, as he has had cases under his care that have come from a distance, and in which, nevertheless, the disease pursued its course unaltered. —*Practitioner*, Aug. 1874.

—

On Peripleuritis.

Bartels (of Kiel), in the *Deutsches Archiv für Klinische Medicin*, 1874, narrates three cases of peripleuritis. By peripleuritis is understood a suppurative inflammation in the costo-pleural cellular tissue, occurring independently of traumatic causes or of pleurisy. This disease is rare. The only other re-

ported cases are two by Billroth, two by Wunderlich, and one by Suadicani—making a total of eight cases. Respecting its etiology, Bartels says nothing is known. The abscess appears to have little tendency to open internally into the pleura. It sometimes by extension causes pericarditis. Nephritis is a common complication.

In speaking of diagnosis, Bartels says the important point is to distinguish this condition from empyema. The affected side of the thorax is sometimes as much bulged and as motionless in peripleuritis as in pleural effusion, but in the former disease the bulging has a much greater tendency to become especially prominent in one or two intercostal spaces. The form of dulness differs also in the two diseases. In peripleuritis the inferior portions of the thorax are usually resonant, and the lower border of the lung descends during deep inspiration. Another important feature of peripleuritis is the complete absence of any displacement of neighbouring organs. When fluctuation is discoverable in an intercostal space, the abscess usually becomes less tense during inspiration and more so during expiration. The prognosis is grave.. Of the eight reported cases four died, in two recovery was complete, and in the remaining two fistulous openings and deformity were left. The important point in the treatment is, to evacuate the pus as early and as completely as possible.—*London Medical Record*, July 8, 1874.

—

On the Liquids Effused into the Pleura.

A work on this subject recently published by Dr. Méhu (*Archives Générales de Médecine*) gives the *résumé* of a long series of experiments undertaken by the author, with the intention of throwing light on the differences between the physical and chemical qualities observed in the liquids of the thoracic cavity. From these experiments, M. Méhu has deduced the following conclusions. In pleuritic effusions the amount of mineral salts is nearly invariable, and always independent of the quantity of albuminous matters contained in them. This rule applies to all the serous liquids of the animal economy, as hydrocele, ascites, hydrarthrosis, hygroma, ovarian cysts, etc. Each kilogramme of liquid yields from 7.5 grammes to 9 grammes of anhydrous mineral salts. Fibrin is more specially present in acute pleurisy in an average quantity of 0.4232 gramme; and it is also present in cases where the thoracic effusion is the result of some obstruction in the circulation of the blood in the heart or the great vessels; but it is then found only in small proportion, being on an average 0.149 gramme. Fibrin was not found in purulent liquids, nor in effusions brought on by the presence of heterologous products such as tubercle, cancer, etc. Whenever the weight of the dry residuum did not attain 50 grammes to the kilogramme of liquid (average 30.1 grammes), there was some impediment to the circulation of the blood in the heart or great vessels, and the effusion was owing to that obstacle (cardiac affections or cirrhosis). When the weight of the dry residuum left by the evaporation of 1 kilogramme of liquid exceeds 50 grammes (the average being 65 grammes, the lowest quantity obtained 58 grammes), and this liquid coagulates after operation into a mass of more or less consistence, it may be taken as certain that acute pleurisy is present. According as the amount of fibrin is large, the patient rapidly recovers; a single puncture generally effecting a cure. If in some cases two punctures have been made, it is not always because the liquid has reproduced itself, but because the operator, fearing some annoyance to the patient, has chosen to extract only a portion of the liquid in the first instance. When the condition of the patient calls for several successive punctures, the proportion of fibrin increases in proportion as the disease is near cure. On the contrary, the fibrin remains in very small quantity, or is not present at all, if the disease shows a tendency to grow worse. Practically, at the bed-side, every pleural liquid for which the gravimeter indicates a density above 1.018 at a temperature of 59° Fahr., coagulates and which sets by degrees into a more or less consistent mass, betokens a clearly defined acute pleurisy, which will be cured the more rapidly as the coagulum becomes more firm. Every pleural liquid of which the gravimeter indicates a density below 1.015 at the temperature of 59°

Fahr., indicates that the effusion depends on the presence of some impediment to the circulation of the blood in the heart or great vessels. Hydrothorax is present. Here the prognosis depends on the primitive lesion, generally more serious than the effusion itself. Every pleural liquid of which the gravimeter indicates a density above 1.018 at a temperature of 59° Fahr., and which does not yield any fibrin, indicates a lesion of the pleura, due to the presence of heterologous product, such as tubercle or cancer, generally a very serious lesion, so that these liquids are generally an unpleasant prognosis.

In all cases M. Méhu recommends that a temperature of fifteen degrees (59° Fahr.) should be taken as a term of comparison, without having recourse to calculations to correct it.—*London Med. Record*, July 29, 1874.

—

On the Use of Ipecacuanha Enemata in Infantile Cholera and Phthisical Diarrhœa.

Ipecacuanha enemata have been tried from time to time in divers diseases of the intestines. Graves and others have done so, but no one seems to have studied this method of treatment with any care. M. Boudon has taken up the subject of late, and the results of his experiments are published by M. H. Chouppe (*Bulletin Général de Thérapeutique*, June 15, 1874).

I. *Method of Treatment.*—Take 308 grains (20 grammes, nearly three-quarters of an ounce) of bruised ipecacuanha root; and 18 ounces (500 grammes, nearly a pint) of distilled water. Make three successive decoctions (for ten minutes each) in one-third of the water. Mix; give half of this quantity for an enema; or, in the case of a child, a quarter only. For an adult, add eight or ten drops of tincture of opium (*British Pharmacopœia*=five or six drops of Sydenham's laudanum). In some cases the quantity of ipecacuanha used has been double that given above, namely 40 grammes. Two enemata are to be given daily: one in the morning, two hours before breakfast; one in the evening, three hours after the last meal. Nausea sometimes follows; vomiting never. The aim of this method is to avoid producing vomiting; it is not supposed that the local effect of the ipecacuanha upon the rectum has much to do with the results. It is seldom that any inflammation of the rectum follows the enemata; and when it does, it passes of as soon as the enemata are left off. Reasons are given for believing that it is the emetina of the injections which does good, and not the opium or the minute quantity of tannin dissolved in them.

II. *Infantile Choleraic Diarrhœa.*—Of five cases, four recovered after from three to twelve enemata; one died, very likely in consequence of being wrongly fed during the treatment. In no case was vomiting produced. M. Chouppe thus sums up. Ipecacuanha seems to act powerfully against the diarrhœa of infants; and when given in enemata, which do not provoke the vomiting which often follows when ipecacuanha is given by the mouth, the enemata can be continued for a long time without weakening the patient, and therefore may be tried in obstinate chronic diarrhœa.

III. *Phthisical Diarrhœa.*—Of seventeen cases, cure took place in thirteen, amendment in two, failure in two. In one case the diarrhœa, which was unaffected by enemata of ten grammes each, was stopped when the quantity of ipecacuanha used was raised to twenty grammes. Most of the patients were in an advanced stage of phthisis; one, whose diarrhœa had lasted ten months, required thirty-four enemata before it was cured.—*London Med. Record*, August 12, 1874.

—

On Pseudomembranous Enteritis.

M. Raynaud (*Le Progrès Médical*, p. 413) describes a case in which some fragments of membrane were passed by a woman, sixty years old, with cardiac disease. The woman had experienced no colicky pains; whereas in the cases reported by M. Siredey, the persons had suffered most intense pains, almost as severe as labour-pains, and in all similar instances reported it was just the

same. One of the pieces was more than a yard long, and might have been mistaken for a tapeworm. It was a hollow cylinder, closed at its ends by a flattened piece of membrane. Its external diameter was nearly a centimètre, its internal one about five millimètres. The microscope showed traces of mucine, and a considerable quantity of leucocytes. The discharged matters were, in fact, concretions of intestinal mucus. How they were formed is difficult to explain; but M. Raynaud thinks it reasonable to suppose that they were the result of a deposit of mucus on the inner coat of the intestines, which, becoming detached, were by the peristaltic action of the bowels formed into tube-like bodies. In the discussion which followed the presentation of the specimen, M. Debosc thought that gradual contraction of the tube took place after its detachment from the intestine. M. Carville, from his experience of the peristaltic action observed in animals, could not believe that the tubes were formed as M. Raynaud suggested.—*London Med. Record*, September 30, 1874.

Surgery.

Treatment of Sebaceous Tumours of the Scalp.

Mr. Henry J. Tyrrell, Surgeon to the Mater Misericordiæ Hospital, Dublin, in an interesting and instructive article on this subject (*Dublin Journal of Medical Science*, July, 1874), lays down the following practical rules:—

1. That those which occur at birth, or in early infancy, should be removed without delay, as experience proves such tumours have a tendency to cause destruction of the bone, and to perforate the skull.
2. That the ordinary sebaceous tumours of the hairy scalp do not cause absorption of the bone.
3. That when a sebaceous cyst ulcerates a spontaneous cure is not to be expected.
4. That when a sebaceous cyst ulcerates it should be entirely removed as soon as possible.
5. That the ordinary sebaceous tumours may remain harmless for an indefinite time, and do not necessarily grow larger from day to day.
6. That the surgeon should not operate on them unless the patient is in good health, and after a careful examination, particularly of the urinary organs.
7. That for removing such tumours the knife is preferable to caustic.
8. That external applications and internal remedies are worse than useless.

On Bromide of Potassium in Alcoholic Amblyopia.

Dr. Quaglino (*Annali di Ottalmologia*, vol. iii., and *Gazzetta Medica Italiana-Lombardia*, March 21, 1874) regards the form of amblyopia in question as a result of the abuse of alcoholic liquors; he doubts whether there is an amblyopia arising from the abuse of tobacco, or considers it at least extremely rare. Men are generally the subjects of the affection. It usually commences slowly, and is first indicated by shortening of the range of vision, or diminished clearness of distant objects, due to the obscuring of the visual field by a thin cloud. It is most marked in bright daylight and in the summer, and diminishes on cloudy days, in the evening, and when the patient is in a moderately lighted place. This erethism of the retina is characteristic of the early stages of the malady. As it advances, the faces of persons appear to the patient as if they were covered with a white powder, and the acuteness of vision progressively diminishes until the patient can only distinguish the medium letters of the test-scale with difficulty at the distance of a few inches. In some rare cases, there is an alteration in the power of perceiving colours or their gradations.

In such cases, the centre of the field of vision is covered by a central yellowish or blue opacity. Having arrived at a certain stage, the amblyopia remains stationary for several months, both eyes being affected. The cause remaining, sight is more and more impaired, until at last large objects only can be perceived. If the cause be removed, the malady may disappear spontaneously.

On external examination, there is only increased brightness of the cornea, with some slowness of the movements of the iris. In old persons there is also varicosity of the conjunctival veins, at the corners of the eye and along the course of the recti muscles.

Ophthalmic examination in the early stage of the malady shows slight redness of the papilla, turgor of the central veins, and diminished calibre of the arteries. In more advanced cases the external half of the papilla is colourless, tending to white; and, in some cases, the papilla has a white appearance over its whole surface, and the arteries are pale, anæmic, and small. The venous network of the choroid may be engorged and redder than usual. The blue whitening of the pupil shows itself rather readily when the case is complicated with meningitis or cerebral congestion. Rheumatism, gout, diseases of the liver, spleen. stomach, and kidneys, and atheroma of the vessels, are somewhat frequent complications.

These amblyotic patients almost always have loss of appetite, spasmodic cough, vomiting, trembling of the hands, uncertain gait, irritability of temper, and cramps in the lower limbs. Their breath has an acid or alcoholic smell; they have an earthy colour, and in old persons there is often acne. In some cases there are weakness of the lower limbs, loss of memory, vertigo, etc., indicating grave changes in the spinal cord or in the brain.

Taking into consideration the sedative action of bromide of potassium on the nervous centres of reflex action, and its effect in reducing the action of the heart and lowering the temperature, and bearing in mind the construction of the retinal vessels observed by Lewizki to follow its use, Dr. Quaglino determined to try the effect of this drug in gradually increased doses. He began by giving a gramme per diem in 170 or 200 grammes of water, and increased the dose gradually till toxic effects began to appear. He relates seven cases thus treated; in some the cure was complete, in others the disorder was arrested, and in none was there a relapse. He concludes that, if bromide of potassium causes narrowing of the arteries and veins of the cerebral membranes, it ought to be useful in amblyopia maintained by descending neuritis and by retinitis arising from insolation, by rheumatic meningitis, and by lead poisoning. In weak and anæmic subjects, bromide of iron appears preferable; and quinia may be given with it when there is an indication of the origin of the disorder from malaria and paralysis of the ganglionic nerves.—*London Med. Record*, May 27, 1874.

—

On Rhinoplasty by a Double Flap.

M. Ollier (*Gazette Médicale de Paris*, 1874, p. 202) refers to the hideous deformities produced in the nose as the consequence of syphilis, and states that the wretched results procured by the old methods of rhinoplasty have caused the operation to be almost abandoned. He suggests that a flap of integument taken from the deformed nose should be combined with the frontal flap. The first and most difficult step of the operation is to dissect the soft coverings of the nose, making a sort of bridge, free in the centre, and adherent at the extremities to the cheeks. A flap is then cut from the frontal region, at least six inches long, and encroaching on the hairy scalp; its pedicle corresponds exactly to the space between the eyebrows. In young subjects, M. Ollier elevates with it the periosteum, otherwise not. The flap is then reversed without torsion, so that the cutaneous surface becomes internal, and the raw surface external; it is slipped under the previously formed bridge of integument, and the two raw surfaces are fastened together to prevent retraction. When the point of the nose is absent he turns up the end of the flap, so as to replace it, and at this first operation he bestows no attention on the formation

of the nares or septum. After the operation the frontal flap first swells, and then unites to the deep surface of the nasal flap; the uncovered portion cicatrizes after granulation. It is well supplied with blood by the two frontal branches of the ophthalmic artery, which pass through its pedicle; the pedicle is never divided by M. Ollier, and thus the atrophy observed after other modes of operation is avoided. The further procedures consist in modelling the nose and preventing it from sinking down, and in forming the nares. Ollier has never observed bony formation from a periosteal flap. The periosteum has always remained fibrous, but it assists in giving firmness to the new nose. In a case where the point of the nose was destroyed, M. Dolbeau partially covered the raw surface of the frontal flap with integument taken from the cheek on each side. A similar process is recommended in Langenbeck's *Archiv für Klinische Chirurgie*, 1860, but Ollier claims precedence, as he communicated his ideas to Verneuil in 1858. The results of Ollier's operations, as shown by the photographs, appear satisfactory. The important feature in the operation is that the pedicle is not divided, and the flap therefore continues to be well nourished.

The osteogenetic power of the pericranium varies according to age, and in different animals; the bone being reproduced in lambs which had been trephined, whilst in the adult sheep, under similar conditions, no bony reproduction was observed.—*London Med. Record*, June 26, 1874.

—

On Extirpation of the Tongue after Ligature of the Lingual Artery.

Dr. Weichselbaum, assistant in the Klinik of Professor Podraski, in Vienna, has an article on this subject in the *Wiener Medizinische Wochenscrift*, No. 42, 1873. The arrest of hemorrhage in operations for cancer of the tongue is often most difficult. In order to readily reach the bleeding points, Syme and Sédillot divided the symphysis menti, and held the two halves of the jaw asunder. Regnolii made an incision from the chin to the hyoid bone, and then a second parallel to the margin of the jaw; the muscles and mucous membrane being divided, the tongue was drawn down through the wound. Billroth, having the same end in view (to facilitate the securing of the arteries), made an osteoplastic section, or cutting out of the middle portion of the lower jaw, a proceeding also strongly recommended by O. Weber, in cases where the disease is far back in the tongue. The objection to this is the difficulty of the subsequent union of the divided portions of the jaw. Czerny operated in 1870 in a case of cancer in the tongue on the left side. He first tied the left lingual artery, then extended the incision along the hyoid bone as far as its right lesser cornu, and afterwards made an incision from the chin to the hyoid bone; the soft parts were divided, the tongue drawn down through the wound, and the disease removed. Billroth has more recently operated without preliminary ligature of the lingual artery. He makes merely a curved incision along the border of the jaw, pulls down the tongue through the wound, and the disease, even when very far back, can be thoroughly removed, while the bleeding vessels can be securely tied. Bulow gave an account of nine cases operated on in this way, five with success. There is but little damage done to the soft parts, the operation is efficient, and provision is made for the discharge of matter forwards in place of into the trachea.

A large number of surgeons have attempted to perform operations on the tongue bloodlessly, either through the use of the ligature, the écraseur, or the galvano-caustic noose; or by the preliminary ligature of one or both the lingual arteries. So far as the first three methods are concerned, they are at the present time almost completely, and, as the author thinks, properly abandoned. At the most, the galvanic cautery is very occasionally employed. All three are open to the objections that one cannot be certain whether all the disease has been removed, and that they do not offer absolute security against bleeding either during or after the operation. The writer mentions a case of secondary hemorrhage which occurred in the practice of Professor Pitha. Nunneley, who advocates the use of the écraseur, saw the lingual artery spout in one of his five cases. Von Bruns has had bleeding after the use of the galvanic cau-

tery. The use of the ligature is very objectionable, on account of the great swelling it produces, and the subsequent presence, in the mouth, of a mass of gangrenous tissue

The preliminary ligature of the lingual artery reduces the hemorrhage in operations on the tongue to a minimum. The first occasion on which it was practised on account of extirpation of the tongue was by Flaubert, in 1833, and by Mirault, in 1835. The latter had the greatest difficulty in discovering the vessel. At the beginning of this century, however, Colomb tied the artery on account of aneurism. The operation was looked upon as so difficult that it was seldom undertaken by surgeons. Formerly the artery was sought for between its origin and the point where the posterior belly of the digastric crosses it. The author, however, prefers to look for it within the triangle formed by the two bellies of the muscle, and the lingual nerve running above and more superficial. In the first position, the artery is much deeper, covered by the hypoglossal nerve, and by several veins, which are liable to injury, while the superior thyroid and facial arteries arise rather close to it. The nerve, lying almost immediately over the artery, may be mistaken for it, and in any case it must be drawn aside. Sometimes the facial and lingual arteries arise by a common origin from the carotid; besides, it is undesirable to place a ligature so close to the parent trunk. These objections do not hold if the artery be exposed in the little triangle of Lesser, whose boundaries are those above mentioned. Here, close beneath the fibres of the hypoglossus muscle, the artery will certainly be found.

The steps of the operation are as follows: The incision through the skin should be made along the upper border of the hyoid bone, three or four centimetres long, and beginning a centimetre externally to the middle line. At the extreme angle a large vein is usually met with, and should be drawn aside. When the platysma is divided, the submaxillary gland appears; this must be drawn upwards after freeing its lower border; and then, just under its middle, may be seen the above mentioned triangle, bounded by the shining tendon of the digastricus below, and the hypoglossal nerve, running from below upwards and inwards superiorly. It must be borne in mind that in old people, in women, and in short-necked individuals, the submaxillary gland projects further downwards, and sometimes even covers the hyoid bone. Often the border of the mylo-hyoid muscle overlaps the triangle, and the hypoglossal nerve may also run very low down. In such cases these parts must be simply pulled aside, and on incising transversely the fibres of the hypoglossus muscle within the apex of the triangle, the artery will at once come into view. There is hardly any hemorrhage except when the capsule of the gland is being divided. This method of operating has been employed by Hüter about five times, and attributed to him in the *Deutsche Zeitschrift für Chirurgie*. vol. i. p. 587, but the writer asserts that it was previously employed by Professor Podraski, and that it is described in Pitha and Billroth's *Surgery* without reference to Hüter.

Dr. Weichselbaum then relates the history of four cases.

The author has collected thirty-seven cases of removal of the tongue after preliminary ligature of the lingual artery, with six deaths, or 16 per cent.; while of nine cases performed according to Billroth's osteo-plastic method, four died, or 44 per cent. But the number of these last is too small to form a proper comparison. The author points out that the absence of bleeding in the mouth makes the boundaries of the disease much more easy to recognize during the operation. When the disease has extended into the floor of the mouth, the author prefers Billroth's submental method, as the parts can be thoroughly drawn out, and the bleeding points secured without much trouble. When the disease is confined to one-half the tongue, it is probably only necessary to secure the lingual on that side, since the branches of the ranine artery do not anastomose in the tongue with those of the opposite side.—*London Medical Record*, June 10, 1874.

Osteoma of the Frontal Sinus.

J. Arnold reports in Virchow's *Archiv*, vol. lvii., two bony tumours of the anterior region of the skull, which are remarkable examples of what has been called by Virchow enostosis, or osteoma developed from the diploë. Both tumours agreed almost entirely in their situation and mode of development, but differed in the rate of growth, in that one only of them represented an advanced stage. Both had their origin at the posterior and lower part of the wall of the frontal sinus, where the ethmoid bone approaches the part (here alone was there a close connection between the tumours and the wall of the sinuses), and thence grew into and distended the sinuses. One of them broke through the wall at separate points above, below, and in front; the large projections of the other pressed on the orbits, nasal cavities, and skull, destroying the anterior lamellæ of the frontal bone, so that the only guide to its origin in the frontal sinus was the presence on it of some mucous membrane with ciliated epithelium. Both tumours had a thin layer of connective tissue on their outer surface. The smaller one consisted entirely of ivory-like masses, while the larger one had this structure on the outside only, the interior being formed of a spongy tissue. Arnold believes that in these two cases, and in twelve others of which he has been able to find records, the tumours must have either been developed from the endosteum by the direct formation of bone substance, or bony transformation of enchondromata which themselves had their origin from the endosteum or from the remains of cartilage. In one of Arnold's cases, the patient was only twenty-three years of age; and Virchow has already observed that the occurrence of the disease in early life points to its origin, in many cases, in disturbance of the formation of bone.—*British Med. Journal*, Feb. 14, 1874.

—

Tracheocele, or hernia of the Trachea.

Dr. Devalz (*Gazette des Hôpitaux*, Nov. 8. 1873) lately read a paper on tracheocele at the Surgical Society of Paris. He affirms that this disease has never been described before, and he therefore dispenses with any historical inquiries. Pneumocele or hernia of the lung was first described by Morel-Lavallée in 1847, and a very interesting *résumé*, with some additional cases, has lately been published by Dr. Cockle in the *Medical Times and Gazette*, Jan. 4 and 11, 1873. Bizot, in 1863, published a case of hernia of the frontal sinus—the bone having been destroyed by syphilitic caries. In this case a small red tumour, formed by the Schneiderian membrane, was seen to protrude on expiration. After explaining the manner in which pneumocele takes place, Dr. Devalz points out that, if such a condition can arise in the most mobile parts of the respiratory passages, it will be readily understood that a hernia can develop itself in another part of the tract. The following is the case on which Dr. Devalz bases his article.

Mr. V., a tall, fairly nourished man, came under observation at Eaux Bonnes in September, 1872, on account of a large swelling in the front of the neck, which he had been told by a medical practitioner was a goitre. For many years he had been subject to attacks of bronchitis, and at these times had suffered severely from cough. He had seen many physicians, and several of these had agreed in the diagnosis that he was suffering from a tubercular affection temporarily arrested. He stated that he had always had a small tumour in front of the trachea, but in 1863, after his cough had been particularly troublesome, the "goitre" became much larger. Previously to this, in spite of the small swelling, the neck had been particularly small, so much so indeed that he found it extremely difficult to obtain a sufficiently small cravat; but in 1863 the paroxysms of cough were very violent and frequent, and the tumour gradually increased till it attained the size it presented at the time the report was sent in. The timbre of his voice was at this period (October, 1873) very peculiar, "each syllable being accompanied with a soft murmur which prolonged the true laryngeal sound, and surrounded it with a kind of sonorous shadow. The sound "*ouvouvou*" (pronounced according to the French language), in a very low tone, gives a good idea of this whispering noise."

On stripping the patient, the upper part of the neck was seen to be almost abnormally small, whilst its root, without presenting a defined tumour, was abnormally widened. On applying the hand to the lower part of the neck, it was not found to have the consistence of a solid tumour, but to yield the sensation of an empty hernial sac, the volume of which varied whilst the patient was speaking. In forced expiration, in coughing, and in blowing the nose, a bilobate tumour perfectly resembling a goitre was formed at the root of the neck. These tumours were pyriform and extended obliquely to the clavicles the right one reaching 2 or 3 centimetres lower than the left. On compressing the trachea on a level with the tumour (before expiration) the fictitious goitre, no longer existed.

Tactile examination could not discover the exact origin of the tumour in the trachea. There was an absence of hardness, redness, or pain in the tumour, and it had no prominences. There were no dilated vessels, and no arterial pulsations. Laryngoscopic examination failed to detect the orifice of communication between the tumour and the trachea.

On auscultation over the tumour a sound analogous to that which is normal in the trachea was heard. The chest was well formed, and, on examining the lungs, the sounds over nearly all the chest were found to be perfectly healthy, although the vesicular expansion was a little weak, and the respiratory murmur feeble and slightly veiled. On the right side, however, at the very summit and beneath the clavicle, there was the most characteristic amphoric breathing and the most evident pectoriloquy. These latter signs, however, entirely disappeared on auscultation, when the lower part of the neck on a level with the tumour was firmly and continuously compressed. It was evident, then, that on the right side the morbid signs were due to the contiguity of the tracheocele and the lung, and that these phenomena were confined to the right side, because the right lung, as is well known, rises in the normal condition higher than the left, and because the tracheocele was smaller on the left side.

On learning the nature and harmlessness of his complaint, the patient, who for a long time had withdrawn from the world, laid aside his anxiety, and recovered the serenity of mind which ought never to have been clouded.

The etiology of the case may be explained as follows. There had always been congenital weakness of the tracheal rings between which the soft parts had passed; repeated attacks of coughing ultimately converted this simple primitive depression into a true hernia, manifested externally by a bilobate tumour. The marked disproportion of relative capacity between the well-formed lungs and the abnormally small neck constituted another factor in the production of the tracheocele. As the weight of a tumour of gaseous nature does not explain its descent, the cause of this phenomena must be sought elsewhere, and it will be found in the influence of expiration. When, in coughing, the current of the column of air becomes arrested by the approximation of the vocal cords, the air is forced downwards, and the mucous membrane being pushed through the weak spot, the tumour, following the direction given by the determining effort, passes downwards. The feebleness of the respiratory murmur is explained by the loss which the column of inspired air is subjected to in furnishing the cavity of the hernia. The following are the points of distinction between goitre and tracheocele, and the two affections can only be confounded by inattentive or uninformed observers.

Goitre.	Tracheocele.
1. *Form.*—It commonly has a bi- or tri-lobate form, is sometimes marked by prominences, and occasionally has large vessels on its surface.	1. *Form.*—It has a pyriform contour, and has neither prominences nor vessels on its surface.
2. *Consistence.*—It has a greater or less density.	2. *Consistence.*—It has no density at all.
3. *Permanency.*—The tumour may rise and fall in respiration, but is always present.	3. *Permanency.*—The tumour may be made to appear and disappear.

Goitre.	Tracheocele.
4. *Dyspnœa.*—When suffocation threatens, it is a very serious symptom.	4. *Dyspnœa.*—The breathing is never seriously affected.
5. *Voice.*—There is no change in the voice.	5. *Voice.*—Vocal sounds are accompanied by a peculiar whisper.

The author remarks, in conclusion, that "tracheocele appears to be an affection free from any serious danger," and he believes that "it will be frequently met with if goitres (the study of which, it must be admitted, is generally neglected) are examined more carefully."—*London Med. Record*, Dec. 3, 1873.

—

Punctured Wound of Kidney.

Dr. J. J. Castellanos reports (*New York Med. and Surg. Journ.*, July, 1874) the case of J. M., æt. 36, wounded Feb. 28th, in right renal region, the wound ranging from outwards, inwards, and obliquely downward, and producing severe external hemorrhage. From the width and extent of the slits and rents which the puncturing instrument seemed to have made upon his vest, shirt, undershirt and pants, it was evident that the thrust had been directed quite vigorously, and it was to be presumed that the wound was a deeply penetrating one, and therefore of a serious nature. Dr Wiendahl was called to see the case later in the morning, and reports that patient had voided darkened bloody urine at 6 o'clock, *i. e.*, 4 hours after the morning, and continued to void similarly colored urine for three days. On the fourth day, having had castor oil administered to him to relieve constipation, which had been induced by opiates and styptics, patient had a recurrence of active, pure hemorrhage, of nearly a quart in quantity. This hemorrhage persisted, though in smaller quantity, for four or five days, after which another hemorrhage, not as copious as the former, set in. This persisted also, with some intermission, for several days. The date of last profuse hemorrhage was February 28th, *i. e.*, twenty days after the infliction of the wound. Large clots were then voided, and prolonged syncope followed, so severe, indeed, as to lead us to surrender all hopes of recovery for our patient. This, however, was the last hemorrhage; patient continued for several days to void discoloured urine, with now and then small coagula, which disturbed the patient exceedingly, inasmuch as he had a stricture of the urethra, and had been suffering for several years past from chronic cystitis and membranous urethritis.

This case was diagnosed punctured wound of the kidney, the knife having gone through both the cortical and tubular substances into the pelvis of the kidney, causing the severe hemorrhages, the flow of which the patient was sometimes made aware of by the gurgling and peculiar "opening of a stopcock" sensation which he describes, as the blood poured from the right ureter into the bladder.

Dr. Castellanos finds his case to be peculiar by the absence of two important symptoms, namely, external escape of urine from the wound, and retraction of corresponding testicle, the burden of explaining which he declines to assume, and leaves it to those whose ingenuity, experience, or inclination would best qualify.

Perfect recovery ensued.

—

On Retroperitoneal Hernia, and the Anatomy of the Peritoneum.

Professor Waldeyer, of Breslau, republishes in Virchow's *Archiv*, Band lx. Heft. 1, a pamphlet originally written for private circulation in 1868.

Retroperitoneal Hernia.—In the post-mortem examination of a robust man, who died of double pneumonia, at the age of forty, there was found a perfectly developed retroperitoneal hernia, which comprised the whole of the small intestines. Since the publication of Treitz's classical monogram (*Hernia*

retroperitonealis, ein Beitrag zur Geschichte der innern Hernien, Prag, 1837), but few such cases have been described.[1] In this case the colon occupied its normal position. The great omentum, rather fatter than usual, concealed the small intestines; when this was reflected, it was seen that the coils of bowel were inclosed in a rather thick whitish sac, which included the whole mass of the small intestine. This sac had both the appearance and the structure of serous membrane, and was closely connected on all sides with the parietal peritoneum of the posterior wall of the abdomen, as well as with the peritoneum of the ascending and descending colon, its structure and texture being identical. It had numerous vessels of its own, with ramifying fat; it was quite transparent, and free from any signs of peritonitis. A median incision made it easy to remove the mass of intestines. The mesentery was quite normal. From the interior of the sac, it was easy to discover that its neck (*Bruchpforte*) corresponded to a point very nearly opposite the cæcum; the lower end of the ileum passed through this, and dragged upon the cæcum. The opening was nearly circular, as large as a two-thaler piece: its edges slightly thickened. The inferior mesenteric vein arched over the upper edge and free border of the opening. There were no signs of strangulation, and the coils of bowel could be easily drawn into and out of the sac. This case was a complete retroperitoneal hernia of the kind described by Treitz (*loc. cit.*, p. 27) in his fifth case. The bowel had forced its way into the duodeno-jejunal fossa, and had gradually pushed the right fold of the descending mesocolon before it, and thus formed a sac for itself. The neck of the sac had originally lain higher, at the junction of the duodenum with the jejunum, and had thus been forced lower and lower with the weight of the mass. Waldeyer thinks the inferior mesenteric vein might easily have given rise to a constricting ring at the neck of the sac.

The Anatomy of the Retroperitoneal Fossæ.—The author adheres to the original and distinctive names of (1) fossa duodeno-jejunalis, (2) fossa intersigmoidea, and (3) fossa subcæcalis of Huschke and Treitz, in preference to the longer appellations of Wenzel Gruber (*Medicinische Zeitschrift Russlands*, 1859, No. 8). He has carefully examined 45 bodies of both sexes, varying in age from twelve weeks (of intra-uterine life) to sixty years. In 18 bodies the fossa duodeno-jejunalis was well developed, without hernia, in one with complete hernia; in 8 it was obliterated, yet clearly recognizable; in 18 it could not be demonstrated—of these, however, 10 were very young embryos, in whom the pouches were yet undeveloped. In 34 bodies the fossa intersigmoidea was well developed, without hernia; in 4 it was obliterated, but clearly demonstrable; in 7 it could not be demonstrated. This form is therefore the commonest; the fossa subcæcalis is much rarer. As regards adults, he finds the percentage in 250 subjects to be nearly as follows: fossa duodeno-jejunalis, 73 per cent.; fossa intersigmoidea, 84–85 per cent.; fossa subcæcalis, 30 per cent. These numbers agree very nearly with those of Treitz and Gruber. The fossa duodeno-jejunalis is practically the most important of the peritoneal pouches, as it most frequently gives rise to internal herniæ. Its site is exactly the part where the duodenum joins the jejunum; the bowel lifts itself from the vertebral column, and receives its own mesentery. It is funnel-shaped, and its blind extremity extends outwards on the left border of the duodenum, lying deep between this and the aorta. Gruber (*Archiv für Anatomie und Physiologie*, 1862, and Virchow's *Archiv*, Band xliv.) has described three cases of this fossa being situated on the right side, with a common mesentery for large and small intestine. In one of these cases there was a retroperitoneal hernia on

[1] The author refers to Gruber, *Petersburg. Medizin. Zeitschrift*,, 1861, and Virchow's *Archiv*, Band xliv. S. 215, for reports or reference to thirty-seven cases; also to three described by Eppinger lately (*Prager Vierteljahrschrift*, Band cviii. 1870); which, with the one above, made forty-one cases of retroperitoneal hernia already recorded. He does not seem to have noticed Dr. Biesiadecki's cases (see a report by Dr. Pye-Smith, in *London Medical Record*, vol. i. No. 15, p. 233) or Kundrat (referred to in *London Medical Record*, vol. i. No. 13, p. 199); nor is it clear that he includes Dr. Pye-Smith's two cases in *Guy's Hospital Reports*, 3d series, vol. xvi.—*Rep.*

the right side. Its usual size is about that of the top joint of a finger, but it may reach dimensions which will easily admit a coil of intestine 1 or 1½ foot long. If traction be made on the first part of the jejunum, in a direction forwards, and to the right, the two peritoneal folds round the opening of this fossa will be seen like the plicæ Douglassii. [Two illustrative cases are appended.] This fossa may sometimes be divided into two, as in a male aged forty, dissected by Waldeyer; and sometimes there is another little pouch (*Vortasche*) in front of it. [A case is appended, in a male aged forty-five, in which this anterior pouch would conveniently hold four or five inches of intestine.] The duodeno-jejunal fossa, as noted above, is often quite obliterated.

The fossa intersigmoidea has had several discoverers (Hensing, Treitz, and W. Roser), and is situated in the mesentery of the sigmoid flexure. Its opening is in the lower fold of the mesentery, and the fossa lies between the two folds of mesentery, very close to the sigmoid flexure. If the latter be raised, so that its mesentery is put on the stretch, the opening of the fossa is easily seen, and, in the author's experience, this is the most constantly present of all the peritoneal pouches. Treitz says that the inferior situation of the opening prevents herniæ from occurring at this spot. The opening of the fossa is generally slit-like, with a sort of valve formed by the upper border projecting—the fossa usually admits the tip of the index-finger. Its size varies. [Two cases are given, in one of which three fingers could be contained—in the other the opening was 2 by 1 inches, nearly.] It is very common to find a canal (½ to 1 inch deep) instead of a fossa—or there may be two such canals or pouches. [Illustrative cases are given.] The edges of the fossa are often very hard and thickened.

The peritoneal pouch of the cæcum or so-called fossa subcæcalis (Treitz) is very rare. Yet two or three such pouches are described by Huschke, Treitz, Luschka, Langer, Schott, and Gruber. The author, from investigations made on the bodies of about 40 adults and 25 new-born children and embryos, concludes that there are at least four such pouches belonging to the cæcum—viz., (1) a fossa ileo-cæcalis superior (Luschka); (2) fossa ileo-cæcalis inferior (Huschke)—recessus ileo-cæcalis (of Luschka); (3) the fossa cæcalis (Huschke); and (4) the fossa subcæcalis (Treitz). A description of these is appended, with illustrative cases; together with the author's views as to the development of these pouches in the embryo.—*London Med. Record*, June 17, 1874.

—

On Angioma of the Glans.

Dr. Parona describes (*Giornale Italiano delle Malattie Veneree e della Pelle*) the case of a boy, eight years old, in whom, when he was a few days old, the large development of the glans attracted the attention of his parents. Some months after birth, he passed some bloody filaments with the urine. At the age of three years, the glans had become very large towards the frænum, and discharged blood. Dr. Larghi proposed decapitation of the penis, declaring the disease to be angiectasis. Dr. Bottini believed that there was a small encysted calculus; but nothing of the kind was found on operation.

At a later period, Dr. Parona, agreeing in the diagnosis of angiectasis, cut away the part of the glans where the tumour existed. The expectation of a radical cure, however, proved fallacious, since at the inner side of the part operated on, and on the cicatrix, red elevations as large as pins' heads budded forth. The application of caustics was unsuccessful, and the new growth continued. Dr. Parona therefore determined to amputate the entire glans. Before the operation, the penis increased in circumference towards the extremity, which was as large as an adult thumb; the prepuce was red, and large serpentine veins ran between the mucous and cutaneous layers. At the orifice of the urethra, and towards the seat of the frænum, were irregular enlargements of fleshy consistence, and resembling a mass of varicose veins. The urethral mucous membrane, as far as it could be seen, was red and granular. On the glans were sky-blue spots dotted with red; it was of natural consistence, and

did not manifest fremitus or pulsation; and became intensely red when the boy stood long on his feet. The corpora cavernosa, at the end next the glans, were small.

On the eighth day the wound was healed, and the child passed urine. After a time the urethral orifice contracted so much that it was necessary to have recourse to gradual dilatation.

The glans having been divided longitudinally, the extremity of the corpora cavernosa was seen to be well developed in proportion to the age of the boy, and unaltered. In the parenchyma of the glans, both at the circumference and in the centre, there were many more or less circumscribed points where the tissue was of less density, and redder, and which, when emptied of blood, appeared spongy. The urethral mucous membrane was covered in great part with reddish granulations of greater or less size. Microscopic examination showed well-marked characters of angioma to be present.—*London Medical Record*, May 27, 1874.

—

Total Transparency in Hydrocele.

In the *Gazette Médicale* of May 9, M. Nicaise draws attention to those cases of hydrocele in which transparency exists throughout its entire extent, no opacity indicating the position of the testicle. Although its occasional occurrence had been noticed by prior writers, the fact was first brought prominently forward by M. Marcellin Duval, first in Bouchardat's *Annuaire de Thérapeutique* for 1858, and then in the *Gazette des Hôpitaux* for June, 1868. During the present year, M. Ohrond, a pupil of M. Duval, has made it the subject of his inaugural thesis. M. Nicaise refers to a case which came under his care at the Pitié Hospital in 1873. A patient, the subject of blenorrhagic subacute epididymitis, exhibited a tolerably abundant effusion into the tunica vaginalis, accompanied by total translucidity. This was the more remarkable, since by palpation the dimensions of the testis and of the epididymis, which were considerable, were easily ascertained. The quantity of translucid liquid, which was removed by aspiration, scarcely equalled in volume the solid mass that remained within the scrotum. A young infant formed the subject of another case, the tumour, composed of a simple hydrocele of the tunica vaginalis, being of the size of a small walnut. There, too, the translucidity was complete, and, unless it had not been known to have done so, the testicle might have been supposed never to have descended. According to M. Duval, this occurrence is chiefly but not exclusively observed in idiopathic hydrocele. M. Nicaise believes the phenomenon somewhat depends upon the complete reflection which takes place from the serous surface of the tunica bathed in the liquid; and it is consequently met with when this membrane has undergone but little alteration from prolonged inflammation. The light which is employed for examination of a hydrocele should be varied in its position, so that it should traverse all parts of the tumour. Its intensity may also influence the result of the examination, as, when this is considerable, opacities may be discovered that elude a duller light. M. Nicaise concludes as follows:—

"Thus, then, in certain cases, a tumour consisting of a solid mass and of liquid may appear exclusively liquid; while in other cases, which occur much more frequently, the quantity of the liquid appears much more considerable than it really is. Palpation, therefore, should always be employed in hydrocele as a corrective of the indications furnished by the examination with refracted light. Without this, we are liable to believe that the testis is placed at a greater distance from the parietes than it really is, and run the risk of wounding it on making a puncture. From what has been said, it will be seen that the examination of the translucidity of hydrocele renders our diagnosis more precise, since it may furnish indications as to the condition of the serous membrane, the thickness of the parietes, and the translucidity of the liquid. These indications vary accordingly as the translucidity is more or less complete, or total."—*Med. Times and Gaz.*, May 16, 1874.

Penetrating Gunshot Wound of the Pelvis, with Perforation of the Bladder and Rectum.

MM. Geoffroy and Delaissement report (*La France Médicale*, December 27, 1873) the following case: On September 6, 1870, while in camp near Paris, a garde-mobile, named Caillaux Pierre, was struck in the right groin by the bullet from a Chassepot rifle, accidentally discharged by a comrade at less than two yards' distance. The ball passed above Poupart's ligament, through the bladder and rectum, and emerged in the left buttock, near the anus. For some days the patient suffered from peritonitis, and was unable to retain either water or feces. The water passed entirely by the wound in the buttock; the greater part of the feces also escaped by the same channel. For some days he was in danger, but was able to sit up within a fortnight, and three weeks after the accident he was removed to his own home. At that time feces and water flowed continuously from the wound. The original channel of the urethra was re-established with difficulty, and gradually the wounds closed; the water then passed almost entirely by the urethra; a small quantity by the anus. Six months after the injury he resumed his occupation as a hairdresser, and he then had complete command over both rectum and bladder, and the only drawback to perfect health was the passage of a few drops of urine by the anus each time he makes water. The patient has since married, and is now in robust health. He says that he performs the duties of a husband very well, but he adds, "L'éjaculation n'a pas lieu par le canal de l'urèthra. Le sperme sort par l'anus."—*Edinburgh Med. and Surg. Journal*, March, 1874.

—

On the Passage of Hairs from the Bladder.

Dr. Sewell, in the *Canada Medical and Surgical Journal* for October, 1873, describes the case of a female child who passed hairs with her urine and drew long hairs from the mouth. She was three years and nine months old. She had been under observation from May to August, 1873, in the Female Orphan Asylum at Quebec. The little orphan was very backward in speaking, of feeble intellect, and of dirty habits, passing everything on the floor in a standing posture. She suffered from frequent micturition, and urinated frequently with more or less pain. Each discharge of urine was found to contain a number of hairs varying from one to seven inches in length. In August they were estimated at one dozen daily. Each hair exhibited, under the microscope, a well-defined bulb, and all the characteristics of ordinary hair. Generally the hairs were fine and of a light colour, occasionally darker and coarser. There was no calcareous matter about them. The urine was of specific gravity 1018, and free from mucus, pus, or blood.

Dr. Sewell says that his case, though an uncommon one, is so far not unique. There is, however, another feature, which, added to the above facts, makes it really, so far as he can discover, perfectly unique. The child is constantly drawing similar hairs, from eight to ten inches in length, from her mouth. These are frequently coated with bloody mucus. He has never seen her draw any from her mouth, but some of the lady visitors have; and he implicitly relies on the report of the matron.

In commenting on this case Mr. John Croft states that the author is quite right in stating that his case is not unique in passing hairs in the urine, as there are now several cases on record, five females and three males. 1. Hildanus, in a letter to Horstius (Horstii *Opera Medica*) relates the case of a woman aged 60, who was under his care from 1616 to 1620, and appears to have been the subject of a dermoid cyst. 2. In the *Philosophical Transactions*, p. 700, there is an abstract of a case of Dr. J. Wallace's. A gentleman passed long hairs during his lifetime, and after death a soft concretion was found in the bladder. 3. In 1733 Mr. Powell communicated to Sir Hans Sloane the particulars of a widow lady, who passed hairy crustaceous substances in her urine, which was whitish like whey. 4. In reply Sir Hans Sloane gave an account of a brewer who suffered from the passage of long hairs matted and woven together, with

little or no calculous matter attached to them. 5. Dr. W. Henry, in the tenth volume of the *Medico-Chirurgical Transactions*, 1819, has described the case of a middle-aged man who passed hairs varying in length from one-tenth of an inch to one inch. He conjectured that the hairs had been attached to the bladder or some of the urinary passages; but there was no positive evidence of this. Dr. Wollaston examined some of the hairs from Dr. Henry's case, and found that they did not differ chemically from ordinary hairs, but they differed mechanically in not possessing the roughness in one direction on the surface, upon which the felting property of every kind of common hair depends. 6. Delpech, in his *Chirurgie Clinique*, 1828, narrates the case of a young married woman, twenty-seven years of age. She passed hairs, and he removed by the urethra masses of hair, scalp, bone, and teeth. He believed it to have been the result of a conception, the cyst to have been situated in the "*ad uterum*," and to have opened into the bladder. It was obviously a dermoid cyst. 7. In the *Lancet*, of November 10, 1860, Mr. Hall has detailed the case of a married woman, aged 60, who suffered from the passage of hairs, and from a concretion which he extracted. Her case was probably one of dermoid cyst, though Mr. Hall conjectured that the hairs had grown from the walls of the bladder. 8. Dr. Fuller has described an interesting case in the *Transactions of the Pathological Society*, for 1870. A married lady, aged fifty, suffered for several years before a cure was effected. It was determined, with reason, that a dermoid cyst had been the cause of her troubles.

With regard to the fact of the hairs drawn out of the mouth, Dr. Sewell does not state whether he explored the mouth or made any physical examination of the chest, or whether the child was the subject of cough. A case of dermoid cyst in the lung, described by Dr. Cloëtta (Zurich) is of interest as bearing on this part of Dr. Sewell's case; and, therefore, I give an abstract of it from Schmidt's *Jahrbücher*, vol. i. 10. A female, aged twenty, was the subject of pulmonary tuberculosis, and expectorated large quantities of hairs. The lower lobe of the left lung was found after death to present a cyst in which hairs, fatty matter, cartilage, and bone were imbedded. This cyst opened into a large cavity on the lung, which was occupied by dead hairs, epithelium, and fat.—*London Medical Record*, Jan. 21, 1874.

—

On Traumatic Aneurism of the Dorsalis Pedis Artery: Anomalous Course of the Anterior Tibial.

At the meeting of the Société de Chirurgie de Paris on May 6, 1874, M. Azéma, of the Ile de la Réunion, communicated a rather unusual case. A man, seventy-one years of age, slipped and twisted his foot. This caused the formation of a small traumatic aneurism, only of the size of a nut, on the dorsalis pedis artery just below the annular ligament. After a few months the tumour had attained the size of a pullet's egg. There was a marked bruit. It was so painful as to prevent the patient from sleeping. Compression of the femoral artery stopped the pulsation and bruit.

It was determined to tie the anterior tibial in the lower third of the leg, but on cutting down in this situation M. Azéma could find no artery, though he met with two veins and the nerve. As the course of the artery was anomalous, he recommenced the operation in the upper third of the leg, and there he exposed an artery, pressure on which stopped the pulsation and bruit of the aneurism, and the ligature of which cured the patient. M. Azéma concludes that the dorsalis pedis artery in this case was furnished by the anterior peroneal. Another speaker related an incident which happened in an anatomical examination at Paris, where the candidate, having to tie the anterior tibial artery, could find only a single vein and no artery at all.

[We must confess to some doubts, both as to the propriety of the surgical treatment in this case, and as to the accuracy of the anatomical details. With regard to the former, surely a small traumatic aneurism, the symptoms of which were immediately controlled by compression of the femoral, and which was subcutaneous, might have been treated by some less dangerous operation than the ligature of the anterior tibial artery at the age of seventy-one. Intermitting

digital pressure on the sac and on the artery leading to it, is ordinarily quite sufficient in such cases, without exposing the patient to any pain or risk. Yet, if we understand the account aright, the surgeon resorted at once to the ligature, without even giving a trial to any milder measure.

As to the anatomy, if the dorsalis pedis were furnished by the anterior peroneal, which is a branch of the peroneal from the posterior tibial at the back of the leg, how could its pulsation be stopped by tying the anterior tibial on the front of the leg? Allowing that the artery was really absent in M. Azéma's operation, and in the operation on the dead subject which was referred to in the debate (and there is no strict proof that it was really absent in either case), it would seem more probable that it was merely an accidental deviation of the anterior tibial from its usual course. The dorsalis pedis is known to be often deflected outwards from the line which it ordinarily follows, and a similar deflection might in this case have occurred at a higher point in the leg.—T. Holmes.]—*London Medical Record*, July 1, 1874.

—

On Ligature of the Internal Iliac Artery, for Fungus Hæmatodes of the Sacro-iliac Synchondrosis.

Dr. Oppizzi relates (*Gazetta Medica Italiana Lombardia*) a case in which the internal iliac artery was tied by Professor Porta at Pavia, on July 9, 1873, in the person of a woman forty-five years old, who had a pulsating tumour in the right buttock which had existed for several months, without any known cause. There was no pain in moving the limb, nor any sciatic pain. The pulsation was accompanied by a bruit which is not described further than as a "souffle very perceptible to the ear." Compression on the aorta or common iliac stopped the pulsation and bruit at once. There were no tumours elsewhere. No hesitation was experienced in the diagnosis of aneurism. After an ineffectual trial of injections the artery was tied—for the first time at Pavia. Little difficulty was experienced in the operation, which lasted about half an hour, and was done without chloroform, the patient submitting very quietly. However, acute peritonitis soon set in, and she died in forty hours.

The tumour was then found to be cancerous and not aneurismal, springing from the innominate bone around the sciatic foramen, and implicating several of the large branches of the gluteal artery.

[This error in diagnosis is one very difficult to avoid. Guthrie's, Moore's, and other cases will at once occur to the remembrance of the surgical reader. The possibility, nay the probability, of such an error furnishes an additional motive for avoiding so dangerous an operation as the ligature of the internal iliac as long as possible.—T. Holmes.]—*London Med. Record*, June 17, 1874.

—

On Partial Fracture of the Tibia in an Adult.

A case of partial or "green stick" fracture of the tibia, occurring in a man forty-eight years old, is recorded by Dr. Menzel, of Trieste, in the *Gazetta Medica Italiana Lombardia* for March 28. This injury is by far most common in children. Dr Menzel says that, in sixty cases observed during life, the bones of the forearm were in nearly all the seat of injury.

Of partial fracture in the adult, Gurlt has collected seven cases; in six of which the femur was affected, and in one the radius and ulna. Dr. Menzel describes his case as follows:—

Antonio Gullich, aged forty-eight, was knocked down by a cart loaded with stone, on December 4, 1873. One of the wheels passed over his left leg. He was carried to the hospital; and on the inner side of the leg there was found a transverse lacerated wound, with greatly crushed edges. There was no dislocation, abnormal mobility, or crepitus; the diagnosis was contusion without fracture. On the following days, the part became swollen; and on December 9, there was distinct dulness in the lower lobe of the left lung, with rusty sputa. On introducing the finger into the wound, the inner angle of the tibia was found to be denuded, but no fracture could be detected. There was, however,

some elastic mobility of the bone at the seat of fracture. His general condition became worse; the presence of pneumonia removed all hope of saving him by amputation, and he died on December 23, nineteen days after the injury.

At the necropsy, the ordinary appearances of pyæmia were found. The left tibia was partially fractured between the inferior and middle thirds, at a part corresponding to the cutaneous wound. About seven-eighths of the periphery of the tibia were divided transversely; the remaining eighth, corresponding to the inner angle, was perfectly intact, presenting not a trace of fissure. The inner angle corresponded precisely with the external wound. There could be no doubt that, when the injury was inflicted, the wheel came into contact with the inner angle of the tibia, and that the bone was broken on the opposite side in the same way as a stick bent over the knee breaks on the convex and not on the concave side. The fibula was not injured.—*London Med. Record*, May 27, 1874.

—

Resection considered as a Remedy for Abduction of the Great Toe—Hallux Valgus—and Bunion.

Dr. A. Rose, Physician to St. Francis Hospital, New York, reports (*Med. Record*, April 15, 1874) five cases of hallux valgus successfully operated upon by resection. Frequently the great toe of aged persons is found in the position of abduction—abducted outward from the median line of the body. This abduction has also been called hallux valgus, being analogous to "pes valgus" and "genu valgum," all of which are outward distortions, or deformities due to abduction. Hallux valgus is a kind of incomplete luxation, and is in rare cases the result of an abnormal process of growth. It is observed, however, that the deformity does not generally begin until the body has ceased growing. In a number of cases it is the result of an arthritis—usually of a gouty character—or, according to Hueter, of a panarthritis urica, which attacks almost always the first metatarso-phalangeal joint. In most cases, however, abduction of the great toe is caused by the pressure of ill-made and ill-fitting boots or shoes. If the broad expanse of the heads of the metatarsal bones is forced into a narrow boot, a pressure is brought to bear both upon the great and little toes, resulting in the formation of a corn on the metatarso-phalangeal articulation of the little toe, while the great toe, on account of its greater lateral mobility, yields to the pressure upon its distal extremity, and becomes abducted, occupying a position upon the dorsal or under the plantar surface of the next toe.

Hallux valgus always causes a portion of the capitulum metatarsi to be removed from contact with the phalangeal articular surface, thus inciting a process of hyperplasia on that portion of the articular surface which is relieved from pressure. This condition is followed by a thickening of the synovial membrane, with disintegration and shrinking of the cartilage, so that, in course of time, all the parts of this first and most important of the metatarso-phalangeal joints may become affected (panarthritis).

The head of the metatarsal bone now forms a remarkable protuberance, which is still more enlarged by a bony proliferation of the bony tissue, caused or promoted by the continued pressure upon, and irritation of, the affected joint. Froriep described this affection as an exostosis of the great toe, after the proliferation of the bony tissue has taken place. In most cases, however, there exists only expansion of the bone, and rarely exostosis.

The continued pressure of the boot upon the proliferating articular head may produce a bursa over the enlarged bone, which frequently communicates with the joint. The bursa itself may, also, in consequence of continued irritation, especially through cold, become the seat of an inflammation, followed by ulceration and the formation of bursal fistulæ, which are very difficult to heal, and which may, by perforation, cause an inflammatory suppuration of the joint, with all its evil consequences.

Hallux valgus, like varicose ulcers of the leg, is principally met with among the labouring class, and, according to my experience, medical aid is not sought until the disease is so far advanced as to render walking very difficult; for the

poor labourer does not apply for the usual orthopædic treatment as long as he is able to work.

Our experience proves this operation to be free from danger, recovery having taken place in all the cases in a short time, through the use of the permanent warm-water bath.

The operation consists in making a short longitudinal incision over the projecting portion, down to the bone. The soft parts and tendons are raised from the surface of the bone, and the head is excised. For this purpose the chain-saw is to be preferred to the bone-cutter. The hemorrhage is usually slight, especially when Esmarch's bandage is used. In order to permit the free escape of the secretions, the wound is left open and the foot is placed—generally after twenty-four hours and sometimes sooner—in a water-bath having a temperature of 90° Fahr. After about two weeks the warm bath is replaced by warm-water fomentations. The wound rapidly fills up with granulations; the great toe, somewhat shorter, becomes straight without any assistance, and a firm tissue is formed at the point of resection between the toe and metatarsal bone, while the weight of the body can be well supported by the uninjured plantar surface. Suppuration of the sheaths of the tendons has never occurred, and only in the one case of suppuration of the joint did we have a small circumscribed phlegmon and abscess on the dorsal surface of the foot, which, however, having been opened, speedily got well.

Amputation of the great toe has frequently been made for hallux valgus, but when amputation at the joint (exarticulation) is practised, a cicatrix usually remains on the head, which causes great pain when it receives the pressure of the boot; while amputation, including the head of the metatarsal bone, deprives the arch of the foot of an essential support.

In short, my experience in resection of the joint in cases of hallux valgus leads me to consider this operation preferable to amputation and to any form of orthopædic treatment in old and extreme cases. I must, therefore, regard resection as a valuable addition to our surgical treatment of these unfortunate cases.

Résumé:—

1. Resection of the head of the first metatarsal bone for abduction of the great toe is, according to our experience in St. Francis Hospital, a safe operation, when, as after-treatment, submersion in warm water is adopted.
2. Resection is equally safe as, and furnishes a more useful limb than, amputation.
3. Resection in old and obstinate cases of hallux valgus is to be preferred to orthopædic appliances.
4. Finally, resection, properly made, leaves the limb without apparent mutilation, and in a condition as useful as the healthy and sound foot.

—

On Intra-buccal Resection of the Inferior Dental Nerve after Paravicini's Method; Recovery.

Dr. Mosetig-Moorhof, of Vienna, says (*Wiener Medizinische Wochenschrift*, March 21, 1874) that the various methods for the division of the inferior dental nerve, which have been proposed in cases of severe neuralgia, are as follows. The vast superiority of the process invented by Paravicini will be at once perceived.

1. Division of the cheek through its entire thickness, at a spot corresponding with the anterior edge of the ramus of the jaw, without dividing the mucous membrane.
2. Division of the cheek at a spot corresponding with the sigmoid notch, in a direction upwards.
3. Division of the soft parts over the posterior border of the ramus of the jaw, in a direction from behind and below, inwards and upwards.
4. Removal of a portion of the angle of the jaw.
5. Trephining the ramus above the commencement of the canal after division of the soft parts.

The method adopted in the case reported by Dr. Mosetig-Moorhof was as follows: The mouth being widely opened, the mucous membrane is divided along the anterior border of the ramus of the jaw, and the finger is directed between the bone and the internal pterygoid muscle to the lingula. The separation of the inferior maxillary from the gustatory nerve is not difficult, since the former passes into the canal and the latter does not. The operation, however, is so far difficult, since the eye cannot be of any assistance, and the operator must trust to his power of touch, and has to work in a very constricted and narrow space; but the result is great relief to the patient, and no disfigurement at all as there is after the before-mentioned methods.

Dr. Mosetig-Moorhof operated on his patient on July 31, and, having found the lingula, divided the internal lateral ligament of the jaw. The nerve and artery were secured by a thread, which was passed round them by means of a small aneurism-needle (it being absolutely necessary to fix them in order to cut through the nerve centrally) and so removed a piece of it. A piece of nerve about four inches long was removed. The reaction which followed a cessation of the neuralgia, and a want of feeling of the right side of the lower jaw, was trifling. Beyond a swelling of the side of the face and pharynx, with some slight difficulty of swallowing, the patient had little to complain of.

The patient was perfectly well by the end of January, and had lost all symptoms of neuralgia.—*London Med. Record*, May 6, 1874.

—

Meyer on Articular Neurosis.

Dr. Moritz Meyer, in a paper read before the Medical Society of Berlin, and published in the *Berliner Klinische Wochenschrift* (No. 16, 1874) attributes to Stromeyer and Esmarch the merit of having of late directed particular attention to the obscure and pseudo-inflammatory affections of joints, which were first described nearly half a century ago by Brodie as hysterical articular lesions. These affections, Dr. Meyer states, have their seats in the nerve-trunks which provide the articular capsule and the soft coverings of joints with sensory twigs, and are revealed by pains felt during movements of the affected joints, and are not unfrequently the sole cause of articular immobility lasting for years, and in some subjects to the end of life. This form of neuralgia, for as such the affection may be rightly regarded, sometimes occurs without any appreciable cause; at other times it is undoubtedly a result of some psychical affection or intense emotion. It often follows some mechanical lesion, as contusion or distortion of a joint, and is occasionally dependent on reflex action in cases of gastric disturbance and irritation of the urinary and generative organs. The diagnosis of articular neurosis, and particularly its distinction from inflammatory affections of joints, is often very difficult; but this is an important matter, since rest and antiphlogistic treatment, which are so serviceable in the treatment of the latter affections, are contraindicated in cases of articular neurosis, which require movement of the affected joint, good diet, and tonics. The guiding-points in the diagnosis of the neurotic affection are the following. Nocturnal pains are almost invariably absent in this affection; slight digital contact with the affected joint is generally very painful, whilst firm pressure and concussion of the cellular extremities of the bones do not cause much distress; temporary œdema and puffiness of the integuments are frequently to be met with; the temperature of the affected joint sometimes undergoes periodical variations; nothwithstanding absolute rest of the joint, and corresponding limb, the muscles undergo very little wasting; the very slight objective phenomena bear but little relation to the severe pain complained of by the patient; if the attention of the patient be diverted for a time from the affected part, the surgeon may often move the parts about the joints, and the limb, without causing pain. Articular neurosis often ceases suddenly on the appearance of other hysterical affections, through violent mental impressions, after sudden and violent movements caused through accident, and in cases of the reflex variety, after cure of the distant and primary affection. The best treatment, according to Stromeyer, consists in the administration of tonics, cold and sea-water bathing, shampooing, and profuse movement of the affected

joint. Hypodermic injections of morphia, and the administration of chloroform are recommended by Esmarch as excellent means of causing relaxation of stiff joints. Dr. Meyer recommends, in addition to these plans of treatment, a powerful induction-current, applied directly to the painful joint. This, he states, acts readily as an anæsthetic and curative agent. Four cases are reported, in which severe articular neurosis was thus successfully treated.—*London Med. Record*, July 29, 1874.

—

Carbolized Gut Ligatures.

Mr. Callender, at a recent meeting of the Pathological Society of London (*Med. Times and Gaz.*, June 27, 1874), exhibited a femoral artery which had been tied with carbolized gut, and a series of gut ligatures which had been subjected to the action of wound secretions. The specimen of artery was the superficial femoral of a woman of fifty, removed twenty days after amputation. The artery was patent at its extremity; no trace of the ligature remained—there was, in fact, only an ordinary fibrinous plug. This result had appeared so alarming that he had considered it necessary to make certain experiments, and the result of these was as follows: 1. A series of catgut ligatures were placed in a wound (after the removal of a fatty tumour) and individually examined at particular intervals. The result showed that catgut ligatures will not last over fifty to sixty hours. 2. A series of catgut ligatures were placed in distilled water at a constant temperature of 99°. After one hundred hours no change was found to have occurred. Mr. Callender, therefore, arrived at these conclusions: (1) that after the application of a catgut ligature to an artery, we must after a time rely upon the clot; (2) that the time we can rely upon the ligature is not more than fifty or sixty hours, or even less if there is strain; and (3) that the changes in the ligature are not due simply to the fluid, but to the nature of the secretions.

Midwifery and Gynæcology.

Premature Rupture of the Bag of Waters.

Dr. Hugenberg (*St. Peterburger Med. Zeitschr.*) observed in his institute 2106 cases of premature rupture of the bag of waters (in 10,482 cases of labour), of which he made careful statistic use. He considers the greatest liability to premature rupture to be when the uterine orifice is not more than three inches in diameter. His conclusions are as follows:—

The too early rupture of the bag occurs on an average in one of every three or four primiparæ; among multipara the proportion is but one in five or six. Especially older primiparæ, with rigid cervix, and multiparæ after the seventh conception, are troubled in this way.

In cases of premature labour, the too early discharge of the liquor amnii occurs seldom in cases of twins, and excessive amount of water frequently. A large fœtus or a narrow pelvis especially predispose; also abnormal presentations in this order, face, podalic, and cross position; the second position also is frequently followed by premature rupture. Labour is, on an average, in premature rupture of the bag of waters, *prolonged by two hours in primiparæ; however, in multiparæ shortened by one and one-half hours.*

Descent of the cord takes place three times as often in early discharge of the amniotic liquor as in the normal condition. The influence on the mother is not harmful, except very slightly on primiparæ (prolonged labour). In cases of multiparæ, however, even very good. The influence on the life of the child is irrelevant.

Supported by statistics, as also a large number of cases where the author practised the rupture with success (even when the uterine orifices was only one and a half inches in diameter), inducing stronger pains and shortening labour, the indication for the operation of artificial rupturing of the bag of waters are as follows:—

1. Especially in multiparæ, when the enlargement of the orifice is retarded by lack of pains.

2. In primiparæ, when with normal pains the cervix dilated too slowly.

3. Where there is a large amount of amniotic liquor, when the lower uterine segment remains broad and flat, and when in abnormal position the fœtus remains movable for a long time. In order to prevent descent of the cord or the extremities, the woman should lie on the side, and the presenting part be brought to the orifice by slight pressure on the fundus. Or one can remove the liquor amnii in suitable quantities by passing a sound, and opening the bag at a higher point.

4. In cases of twins, if by too great dilation of uterus insufficient pains are present, and the dilation is retarded.

5. Death of the fœtus, if expulsion does not soon take place.

The premature rupture is contra-indicated when we find excess of pain and spasms, the vagina is thick and tense, or the uterine orifice is rigid, unyielding, and tense, when the position is abnormal, the pelvis narrow, or the lips of the uterus flaccid and depending, and finally in cases where the cervix is pressed between the child's head and the anterior pelvic wall.—*Detroit Review of Med. and Pharm.*, October, 1874.

On the Means employed for the Prevention and Treatment of Puerperal Diseases at the Preston Retreat. (Concluded from page 185.)

In the *American Supplement* to the August number of the *Obstetrical Journal of Great Britain and Ireland*, Dr. William Goodell publishes the concluding portion of his paper on this subject as follows:—

In a previous communication I stated the means adopted at the Preston Retreat for the prevention and treatment of puerperal diseases. I now purpose to give my reasons for such of them as need some explanation.

But few words are needed to explain why the ordinary chamber-pots are used, and why patients are made, once or twice a day after the first, to get out of bed and slip into a chair. The presence of putrescent fluids in the utero-vaginal tract is recognized by all writers as the great cause of the autogenetic variety of puerperal disorders. But the recumbent posture of itself necessarily tends to detain these poisonous discharges in contact with the traumatic lesions of labour. These discharges may also be partly imprisoned in the vagina through the swollen condition of the more external soft parts, or partly corked up in the uterine cavity by the presence in the cervical canal of a putrid clot. In such cases detergent vaginal injections are highly recommended. But clinically they will be found of limited value; for they cannot reach high enough, and do not ordinarily dislodge a large clot even when situated low down. True, intra-uterine injections are not open to one of these objections; but, apart from their being attended at best with some degree of hazard to the patient, the operation is too delicate a one to be entrusted to a nurse. Besides, in hospital practice the nozzle of a syringe—to say nothing of the fingers of a nurse—is, I fear, so often one of the vehicles for the transmission of virus, as to make this means of disinfection of doubtful propriety. In a local outbreak of fever, especially of the diphtheritic form, I should, however, sugges the use, immediately after labour, of vaginal injections containing the nitrat of silver or the persulphate of iron, in quantities large enough to sear over the traumatic lesions of labour. Such injections I have had no occasion to try, but they ought to inhibit active absorption and promote healthy granulation.

While seeking a substitute for the syringe, my attention was directed to the fact that the act of sitting on the ordinary chamber-pot often forced out putrid shreds or fetid clots, which had not been washed away by vaginal injections. This led me to discard, except in cases of positive illness, the use of bed-pans,

or of any other utensil—such as urinals—which can be used by a woman when lying on her back. Shortly after making this change, I found that, for like reasons, some shrewd and very practical writers of the last and the present century, urged an early departure from the recumbent posture. Further; a residence of some years in the East had taught me that oriental women, at least, can with impunity get up and be about a few hours after delivery. Influenced by these facts, I decided, cautiously at first, to introduce into the wards of the Retreat a system of puerperal gymnastics, consisting in no restraint whatever as regards the position in bed, and in the daily release from an irksome confinement. I was much pleased to find that the muscular exertion needed for these movements, so far from inducing hemorrhage, excited the womb to contraction, and emptied it and the vagina of their putrid contents. I can testify that whenever the lochia are offensive, these upright positions, repeated several times a day, are excellent deodorants, better in fact than any detergent vaginal injections. There is yet another advantage gained by this plan: it affords, in hospital practice, an excellent opportunity for bundling the bed and bedding out of the ward, and giving them a much needed airing. In a crowded hospital ward the hygienic importance of such repeated disinfection can hardly be overestimated. At the risk of being called an enthusiast, I will go a step further, and hazard the assertion that there is a form of puerperal septicemia not necessarily accompanied by putrid lochia—at least not appreciably so—but indicated by high temperature, rapid pulse, complete anorexia, heavy sweats, and, later, by herpes labialis, which stubbornly resists treatment until the patient is made to get out of bed. This I have seen often enough, after keeping a woman on her back for some pelvic disturbance, to prevent any mistake as to the relation of cause and effect.

Lying-in women are encouraged to get up for good when they feel so disposed, because there are, to my mind, strong objections to the rigorous maintenance of the recumbent posture. Labour is, in general, a strictly physiological process, and there can be no sound reason why it should be made to wear the livery of disease. Nature teaches this very plainly, for most women wish to get up long before their physicians are willing to let them. The fact of a woman's wishing to get up is to me a very good reason why she should get up. In the second place: few physicians will deny that nothing so relaxes the tone of muscular fibre as a close confinement in bed. In my experience a woman ordinarily feels stronger on the fifth day than she does on the ninth, if rigorously kept under quilts and blankets. Once more: the upright position not only excites the womb to contract, but, by distributing the blood and equalizing the circulation, it actually lessens the amount of the lochia and shortens their duration. On the other hand, the dorsal decubitus keeps up a passive congestion of the womb as a whole, the engorgement of the greatly hypertrophied placental site, and a blood-stasis in the now thickened posterior wall—all important factors in hindering the process of involution. Again: uterine diseases are hardly known among those nations whose women early leave their beds. From passages in the writings of the classics, it is evident that among the ancient Greeks and Romans, those models of physical strength and beauty, the women arose and even bathed in a running stream, very shortly after delivery; in some cases on the very day. Finally: what is sounder than all theory, a sufficiently long and well-sifted experience has proved to me that, by such a treatment, convalescence is rendered far more prompt and sure. At this result, very unexpected to the multiparous patients of the Retreat, they are constantly expressing their surprise.

The arguments against the customary purge on the second or the third day are to my mind very sound. I am well satisfied that the "milk fever," for which it was originally introduced into practice, is essentially a myth. Genuine "milk fever" as such is a rare complication, and, when present, of no significance whatever. Unless the nipples are chapped or abraded, the engorgement of the breasts hardly ever leads to abscesses. In proof of this assertion; how rarely does mastitis follow stillbirths! In the vast majority of cases, the occasional constitutional disturbance, the chill-and-fever on the third or fourth day—the so-called "milk-fever"—is owing to a septic cause, and not

to a mammary one. True, the breasts are by this time swollen and painful, but it is a mere coincidence, and coincidence is here mistaken for causation. Purges are, therefore, not only wholly unnecessary, but they disturb the equilibrium, and, what is worse, promote the absorption of septic matter. Partly from increasing the activity of the absorbents, the hemorrhages of labour are very liable to be followed by blood-poisoning. Now, the same result may be logically predicated of a depletion in the shape of a purge. Were my readers to go over their cases of puerperal fever or of other puerperal diseases, I think that they will find some of them dating from the day on which a purge had begun to act. Is it not more than a mere coincidence that these diseases attack a woman usually on the third or fourth day, viz., the day of or following the administration of the customary purge? Three instances of puerperal peritonitis, two of them ending in death, have come to my knowledge, which were referable as plainly as could be to purgation. In one, the lady was slowly but surely mending from the effects of a severe instrumental delivery. For some reason or other she took, in the third week, an ordinary dose of citrate of magnesia. This violently purged her, and at once brought on a fatal attack of fever. In the other two the patients could not have been doing better, until they got a dose of castor oil, which was given for no other reason than that the authors of our text-books were haunted by the bugbear of "milk-fever." Did space permit, I should like to show that this opinion is not shared by myself alone; that cases of phlegmasia dolens have been traced to the effects of a purge, and that the use of aperients during an epidemic of puerperal fever has been strongly condemned.

Quinia is given without stint, because, apart from its well-known tonic and antiperiodic properties, it possesses others which make it, above all remedies, the one best suited for puerperal disorders. By lowering high temperature it retards the oxidation of tissue, and hinders the formation of fibrinous concretions. By shortening the excursions of uterine fibres in their alternate contractions and expansions, it lessens the diastolic engorgement of the womb, diminishes the calibre of uterine bloodvessels, and thereby tends to keep their protective coagula from becoming loose and soluble. By contracting the placental site it proportionally limits that area of absorption. By constringing the coats of the capillaries, and by its inhibitory power over the migration of colourless blood-corpuscles, it either arrests suppurative inflammation or restrains its violence. Finally, it seems to exert a positive curative action on the blood in cases of putrid or purulent absorption. Clinically, I have found nothing comparable to quinia as well as a prophylactic against puerperal disorders, as a remedy for them. But it must be given early, frequently, in large doses, and pushed to a high grade of cinchonism.

Ergot is a very untrustworthy oxytocic. One never can tell beforehand whether it will behave kindly, or run a muck. It is, therefore, no favourite with me. The vectis and the forceps, being under perfect control, are far better oxytocics; their aid is therefore often invoked, in order to save a woman's strength, and to avoid that laxness of uterine fibre following a long and weary labour. Ergot is, however, given as the head is about to emerge, in order to lessen the chances of a flooding or of unruly after-pains, and to aid the process of involution by condensing the uterine globe to its minimum size. For an analogous reason I feel persuaded that Credé's method of placental delivery provokes to a more complete involution. It certainly empties the womb of all clots, and squeezes it down to its smallest capacity.

The prolonged use of the binder is given up for reasons which have been published in this Journal (April, 1874, p. 8). I shall therefore not repeat them. I wish, however, here to state that even its brief use during the first few hours after labour, is not held by me as a cardinal point. I begin to have grave doubts whether it is of any value whatever in the prevention of hemorrhage. On the score of utterly abandoning it I am quite open to conviction.

So much for the reasons on which the foregoing measures are based. Let me now give the results. Up to date there have been 756 cases of delivery,

with six deaths. The following are the order and the numbers of the fatal cases, as copied from the Case Book :—

No. 22. Concealed accidental hemorrhage from the gravid womb.
" 203. Puerperal peritonitis.
" 289. Acute chorea.
" 360. Caries of petrous portion of the temporal bone.
" 398. Chronic pelvic abscess.
" 647. Septic pneumonia.

The case of puerperal peritonitis was an isolated one. The woman had been abandoned by her husband, to whom she was devotedly attached. She fretted and brooded over this desertion in so despairing a manner as to make me apprehensive of mania. Three other patients occupied the same ward with her, but they escaped from contagion.

Cases 22, 289, and 360 were deemed by me so exceptional that their histories were reported to the Obstetrical Society of Philadelphia, and afterwards embodied in its Transactions (*Am. Journal of Obstetrics*, vol. ii. p. 286; vol. iii. p. 140 ; vol. iv. p. 126). Case 398 was that of an old pelvic abscess following a previous labour, viz., an abortion produced by the kick of a drunken husband. During the last week of utero-gestation this abscess began to inflame and to cause her so much suffering that very large doses of morphia were needed to control it. Labour very greatly intensified this distress. When the womb was emptied a tumour was found in left broad ligament, and all the symptoms of localized peritonitis were present. Under appropriate treatment she soon began to mend ; but on the fourteenth day she was suddenly seized with violent abdominal pain and fell into a collapse, from which she never rallied. An autopsy, made by my friend the editor of this Journal, revealed an old pelvic abscess, which had burst into the cavity of the abdomen. This case, it seems to me, cannot fairly be attributed to a septic cause, but to the ante-partum recrudescence of an old lesion. Case 647 is one of doubt in my mind. There were no appreciable pelvic or abdominal lesions; and yet, in default of an autopsy, which was not permitted by her friends, I think it fairer to attribute the pneumonia to blood-poisoning rather than to a non-septic cause.

To sum up, then : out of 756 cases of labour there have been

2 deaths from septic causes.
1 death from the bursting of an old abscess.
1 death from hemorrhage.
2 deaths from non-puerperal diseases.

Apart from the above record the Case-Book exhibits no case of phlegmasia dolens, and none of pelvic abscess. One woman, however, had, I am told, a pelvic abscess at home. Through fright at an outbreak of measles in the building, she insisted on rising from her bed and on being discharged on a wet winter night. Although a large proportion of the inmates were primiparæ, and two of them confirmed epileptics, but two cases of eclampsia took place, and these in women who had not been subjected to any prophylactic treatment. The one, while labouring under violent convulsive attacks, was brought in a hack by her friends. The other was seized the day after admission. Both recovered under repeated rectal injections of drachm doses of the hydrate of chloral, and a final delivery under ether with the forceps.

Since nothing is so fallacious as statistics, even when based on large averages, it is with much diffidence that I offer the above meagre data. They may not sustain my views ; but they will, I hope, show that lying-in women can be gainfully treated in a manner less artificial than is customary, and more in accordance with the maxim *naturâ duce*.

One word more : For many reasons the statistics of a lying-in hospital can never compete with those of private practice. Of these I shall adduce but two. In the first place, the former are more trustworthy, for physicians very naturally shrink from reporting their fatal midwifery cases as such. I have known a death from post-partum hemorrhage returned as one from "anæmia," and another from puerperal albuminuria as a case of "pneumonia"—œdema of the lungs being present; whilst fatal cases of puerperal septicæmia are con-

stantly being certified to under the heading of some prominent symptom which tells no tale, such as "peritonitis," "pleuritis," or "pneumonia." For instance, during a period of eight weeks of this year I was asked to see eight cases of puerperal fever—four of them from one Sunday to another. Of these all but one proved fatal. During the same time I casually became cognizant of seven other fatal cases. Now, during these eight weeks I studied with much interest the weekly returns of the Board of Health, and found there reported just twelve deaths from "puerperal fever." There were, however, also reported, eleven deaths from "inflammation of the peritoneum," one death from "child-bed," and one each from "septicæmia" and "pyæmia." Comment on the above is unnecessary; the figures speak for themselves.

In the second place, physicians naturally shirk the worry and anxiety, the delay and trouble incident to difficult labours in their private practice, especially when such occur in a class from which they can expect no adequate remuneration. A hospital thus becomes the Cave of Adullam for all these abandoned cases. For instance; out of the six fatal cases which I have reported from the Case-Book of the Retreat, the one of chorea and that of hemorrhage were sent to the institution by the family physician—the former on account of her being unmanageable at home; the latter because her labours were growing more and more difficult from an exostosis. The two epileptics[1] adverted to. two distressing cases of phthisis and valvular disease of the heart, and many of difficult labour in multiparæ come under the same category. There are at present in the building two women not yet delivered, who were sent there by their respective medical attendants. The one is an epileptic primipara; the other a secundipara with a vesico-vaginal fistula, the result of craniotomy in her previous delivery. It is thus that the death-rates of lying-in hospitals show to disadvantage beside those of private practice.

—

On Puerperal Tetanus.

M. Blachez reports (*Gazette Hebdomadaire de Médecine et de Chirurgie*) a case of true tetanus, not one of those forms of muscular contractions occurring in the newly confined or nursing mothers, which was described by M. Delpech (1846) under the name of idiopathic muscular spasms, or which Trousseau called *tétanie*, or which Dance long previously (1831) named intermittent tetanus (*tétanos intermittent*). The patient was a woman forty-three years old, mother of ten children. During the last year, she had been subject to hysterics. She was confined of a puny eight months' child twelve days before her admission into the hospital. She got up, as was usual with her, on the fourth day. On the ninth day after her confinement, she felt difficulty in swallowing, and stiffness of the jaws. The dysphagia, trismus. and opisthotonos gradually increased in severity, until death took place on the fifth day after her admission into the hospital, and the thirteenth day after delivery. On admission, the temperature and urine were normal, the lochia were natural, and the breasts contained but little milk. The temperature gradually rose to 44.2° Cent. (111.5° Fahr.), and the pulse to 136. The temperature was not taken at the time of death. The treatment consisted of chloral, cupping, and the application of chloroform in spray along the spinal column. The necropsy, apart from congestion of the two lungs, especially the right, and a marked injection of the vessels at the base of the brain, exhibited no lesion. Careful microscopic examination showed nothing.

Although there is some analogy between the two affections, hysteric convulsions (*tétanie*) and tetanic convulsions (*tétanos*), and a resemblance as if of the same morbid species, still there is a sufficiently marked difference in their etiology, progress, and prognosis. "Tétanie" is almost invariably a benign disease, and very rarely mortal; not so "tétanos;" the latter has never been observed except in close connection with parturition, whereas the former has

[1] I am not aware that epilepsy predisposes to puerperal eclampsia—at least I have not found it to do so. But many physicians look upon it as a dangerous complication in labour.

been observed during gestation or after many months of suckling. Trousseau states that young women are peculiarly liable to *tétanie;* not to tetanus (*tétanos*). Hysteric convulsion (*tétanie*) has a partiality for the extremities; the attacks are separated by a period of calm and health, the muscles of the jaw and chest are seldom invaded, and the temperature is normal. Tetanus generally occurs after some accident during labour, and is developed under the same unfavourable agencies that lead to the ordinary puerperal affections. The uterine wound plays a very important part in this disease, not so in the other. Simpson's hypothesis that hysteric convulsions are the result of some poison developed in the blood, is negatived by the fact that they generally occur under the most favourable hygienic conditions. Hemorrhage, obstetrical operations, moral impressions, and, above all, chills, play a very important part in the production of tetanus, but the precise influence of each has never yet been made out. They are the chief agents in the etiology of all puerperal affections, not in tetanus in particular. In this patient there was an exalted nervous condition, as was shown by the hysterical attacks. Puerperal tetanus is as obscure as surgical. Deduct the puerperal condition, and they are the same; simple traumatic tetanus, consequent on injury.—*London Medical Record*, Sept. 2, 1874.

—

On Tincture of Eucalyptus Globulus in Puerperal Affections.

At a meeting of the Dresden Medical Society (*Berliner Klinische Wochenschrift*, July 28) Dr. Osterloh reported that he had given tincture of eucalyptus in thirty-one cases. The preparation was obtained from off a tree in the Botanical Gardens in Dresden. Where there was febrile disturbance without any apparent anatomical cause the drug acted beneficially, but in cases of primary acute inflammatory fever the results were nil. In the course of the debate, it was stated that the preparations sold by the druggists varied considerably in their effects.—*London Medical Record*, Sept. 23, 1874.

—

On Luxation of the Right Sacro-Iliac Synchondrosis.

Dr. Bille exhibited before the Dresden Medical Society on July 5, 1873 (*Berliner Klinische Wochenschrift*, July 13, 1874), the pelvis of a young woman, aged twenty-two, in which this accident had happened. She was stated to have been seventy-nine hours in labour, and as far as could be gathered, she was delivered by the forceps. She had endocolpitis and endometritis during the puerperal stage; but on the tenth day she felt well enough to return to her home. Shortly after her return she began to experience intense pain over the right iliac joint, which compelled her to re-enter the hospital. On admission, all the organs were found healthy with the exception of the uterus, which was subinvoluted and very sensitive. Any movement of the right thigh caused crepitation to be heard and felt over the hip-joint. Abscesses formed, opening into the hip-joint and above Poupart's ligament. In the seventh week, she sank from the exhausting drain of pus. The necropsy showed several fistulous tracts leading from Poupart's ligament to the sacro-iliac joint, also infiltration of pus into the sheaths of the deep muscles of the thigh, with separation of the periosteum from the neck of the femur.

The articular surfaces of the right sacro-iliac synchondrosis were roughened and carious, the bones being separated about two lines from each other. The surrounding soft joints were infiltrated and discoloured. The other parts of the pelvis were all healthy. Dr. Bille was induced to believe that the pelvis was quite normal, but the child was disproportionate; but he did not suppose that it (the child) need have separated the joint, and so set up inflammation. It was probably a distinct affection coming on incidentally afterwards. Dr. Krüger combated this view, maintaining that it arose most likely through the fœtus being left too long in the second stage, which set up mischief in the joint. This view was not accepted by the Society.—*London Medical Record*, Sept. 23, 1874.

On a Case of Adherent Ovarian Cyst, cured by Injection of a Solution of Carbolic Acid.

Dr. Edward Martin reports (*Berliner Klinische Wochenschrift*, June 15, 1874) the case of a young woman, aged twenty-five, of delicate constitution. The ovarian tumour was ascertained to spring from the left side, and to be attached to the uterus. The uterine sound passed nearly three inches forwards, and to the right. Any movement of the tumour affected the uterus. At the urgent request of the patient, she was operated upon. An incision about four inches long was made in the linea alba. The tumour was then found to be so firmly adherent to the abdominal walls, that any attempt at its removal would have been fraught with great danger. An opening a little more than an inch long was made into the cyst, and about a quart of a brownish glairy fluid, mixed with small blood-clots, was let out. An examination of the cyst showed it to be fixed to the abdominal walls, and to the uterus to a large extent. Two strong elastic catheters were fixed in the cyst, and the wound closed by metallic sutures. The next day, a solution of carbolic acid in water (0.25 per cent) was injected into the cyst, and continued until what ran out of the other catheter was quite clear and free from any odour. That which first came away was turbid. This was repeated three times a day. The solution on the next day contained 2½ per cent. of carbolic acid, which was afterwards increased to 10 per cent. The temperature never exceeded 101.5 Fah., and the pulse 120. The tumour gradually became less and less, and on the thirteenth day it was about the size of an apple, and the discharge was free from any odour. The injections were then reduced to twice a day. On the twenty-fourth day the catheters were removed. The small fistulous opening soon closed; and when last seen, five months afterwards, she was completely restored to health and strength.

The only point of interest was the uninterrupted convalescence; which was attributed to the frequent washing out of the cyst with the carbolic acid lotion. At no time did the urine show any trace of carbolic acid, although a strength of 10 per cent. was for some days injected. The remains of the former tumour were still evident behind the cicatrix when last examined, but nothing was discoverable *per vaginam*.—*London Med. Record*, Aug. 19, 1874.

Medical Jurisprudence and Toxicology.

On Poisoning by Osmic Acid.

All inquiries into the toxicological action of the rarer metals have a peculiar interest. The deleterious action of osmic acid has been known for a long time. M. Frémy was the first to call attention to the poisonous nature of the osmium compounds. M. Sainte-Claire Deville was himself seized with persistent nervous asthma in working with the acid. M. Debray suffered from some affection of the eyes caused by it; and lastly, M. Julien Clément found that it induced a cutaneous disease which was very difficult to cure.

The paper before us, by M. Raymond, in *Le Progrès Médical* of June 27th, 1874, gives a history of a case of supposed poisoning by osmic acid. A man aged thirty, being out of his usual employment (a band-box maker) engaged himself to work in the laboratory of M. Sante-Claire Deville. Here he was occupied in the daily handling of pieces of osmium, platinum, and iridium. In the process to which they were subjected, an osmiate of baryta was produced; this was treated with nitric acid, and the osmium precipitated with sulphide of ammonium. The man up to the time of beginning this work was perfectly healthy, and it is important to notice there was no history whatever of syphilis. After commencing this new employment he was very soon taken ill, the first symptom of which he complained being pains in the eyes. He slept heavily at

night, and was much troubled with nightmares. After a few days, an extensive eruption appeared on the surface of the forearm, on the face, and on both sides of the hands. Extreme indigestion, frequent diarrhœa, nine or ten times daily, and at each stool the passing a considerable quantity of black blood (the patient having no signs of piles) were prominent symptoms as the case progressed. Violent headaches, nausea without vomiting, shiverings, extreme dyspnœa, and a harassing cough rapidly followed. On admission at the hospital, the one prominent symptom was the extreme difficulty in breathing, amounting almost to threatening asphyxia. The temperature was 104° Fahr. On examination, the chest revealed the existence of a general bronchitis, and on the left side there was a somewhat extensive pneumonia. The skin of the hands and forearm was sprinkled with a papular eruption of a red and brownish colour, whilst the urine showed the existence of a large amount of albumen.

The case gradually became worse, and eight days after admission the man died. The temperature during the time he was in the hospital remained at 104° Fahr.; the pneumonia gradually increased in severity and extent; no diminution in the quantity of the albumen was apparent under treatment; and the weakness gradually became extreme.

At the *post-mortem* examination the lungs showed a very manifest change, there being in both evidence of extensive pneumonia. In one lung there was "a gangrenous cavern" in course of formation. On examination with the microscope, pus-globules were discovered in the pulmonary cells of both lungs. The kidneys showed the pathological appearances indicating extensive and acute Bright's disease. In the stomach there was a considerable amount of inflammatory action along the greater curvature. The other organs were healthy. On chemical examination, however, of the several viscera by M. Personne, no trace of the poison, the supposed cause of the illness and death, was discovered.

M. Raymond believes that it was an undoubted case of poisoning (chronic) by an action of an osmium compound; and he further promises to lay before the Société de Biologie, at which the original paper was read, the result of further experiments with osmium and its salts. We look forward with some interest to them.—*Lond. Med. Record*, Sept. 30, 1874.

Hygiene.

Quarantine in Relation to Cholera.

The International Sanitary Conference which convened at Vienna, on July 1st, for the purpose of considering the question of quarantine in relation to cholera, numbered among its members many of the most distinguished European authorities upon cholera. The Conference terminated its work on the 1st of August, after twenty sittings. The following are the conclusions which were arrived at, and for which we are indebted to the *Practitioner*, for September. The conclusions which were unanimously adopted are indicated by the capital letter *U*, and where unanimity was not arrived at, the distribution of the votes is given.

A.—Scientific Questions.—I. *Origin and genesis of Cholera; endemicity and epidemicity of this disease in India.* Asiatic cholera, susceptible of spreading (epidemically), is spontaneously developed in India, and when it breaks out in other countries, it has always been introduced from without. (*U.*) It is not endemic in any other country but India. (*U.*)

II. *Questions of Transmissibility.* 1. *Transmissibility by Man.* Cholera is transmissible by man coming from an infected medium; but man is not considered as the specific cause, apart from the influence of locality; he is regarded as the propagator of cholera when he comes from a place where the germ of the disease already exists. (*U.*)

2. *Transmissibility by Personal Effects* (*clothing, linen, bedding, etc.*). Cholera can be transmitted by personal effects coming from an infected place, especially such as have served for the sick from cholera; and certain facts show that the disease can be carried to a distance by these effects if shut up so as to prevent free contact with the air. (*U.*)

3. *Transmissibility by Foods and Drinks.* (*a.*) *Foods.* The conference, not having conclusive proofs of the transmission of cholera by foods, decided by eleven States against seven that it was not justified in coming to a decision on this question.

(*b.*) *Drinks.* Cholera can be propagated by drinks, particularly by water.

4. *Transmissibility by Animals.* No proof exists of the transmissibility of cholera by animals, but it is reasonable to admit the possibility of such transmission. (Yes, 10; No, 2; abstaining, 6.)

5. *Transmissibility by Merchandise.* Although proof is wanting of the transmission of cholera by merchandise, the possibility of such transmission in certain conditions should be admitted. (Yes, 13; abstaining, 5.)

6. *Transmissibility by Cholera-corpses.* Although it is not proved that cholera-corpses can transmit cholera, it is prudent to consider them dangerous. (*U.*)

7. *Transmissibility by the Atmosphere alone.* No fact is yet known which proves that cholera can be propagated to a distance by the atmosphere alone, whatever its condition. Moreover, it is a law, without exception, that an epidemic of cholera is not propagated from one place to another in a shorter space of time than it takes man to travel.

The surrounding air is the principal vehicle of the generative agent of cholera; but the transmission of the malady by the atmosphere, in the immense majority of cases, is restricted to the close vicinity of the focus of emission. As to facts asserted of transportation to a distance of one or many miles, they are not conclusive. (*U.*)

8. *Action of the Air upon the Transmissibility.* It results from a study of the facts that in free air the generative principle of cholera rapidly loses its morbific activity; but that in certain conditions of confinement this activity may be preserved during an undetermined time. Great deserts form a very efficacious barrier against the propagation of cholera This disease has never been imported into Egypt or Syria, across the desert, by caravans from Mecca. (*U.*)

III. *Duration of Incubation.* In almost every case the period of incubation —that is to say, the time which elapses from the moment when an individual has contracted the choleraic intoxication to the commencement of the premonitory diarrhœa or of confirmed cholera—does not exceed a few days. All the facts cited of a more prolonged period of incubation refer to cases which either are not conclusive, or in which the premonitory diarrhœa has been included in the period of incubation, or in which contamination (the contraction of the choleraic intoxication) has occurred after departure from the infected place.

Observation shows that the duration of the choleraic diarrhœa called premonitory—which must not be confounded with other kinds of diarrhœa that may exist where cholera prevails—does not exceed a few days.

The facts instanced as exceptional do not prove that cases of diarrhœa of lengthened duration belong to cholera and are susceptible of transmitting the malady, when the person affected is removed from all cause of (choleraic) contamination. (Yes, 13; No, 1; abstaining, 4.)

IV. *Questions as to Disinfection.* Are any means or processes of disinfection known by which the generative or contagious principle of cholera can be *certainly* destroyed or deprived of its intensity? (No, 12; abstaining, 7.)

Are any means or processes of disinfection known by which the generative or contagious principle of cholera can *with some chance of success* be destroyed or deprived of its intensity? (Yes, 13; No, 5.)

Science does not yet know any certain and specific measures of disinfection; but the great value of hygienic measures, such as ventilation, thorough

cleansing, etc., is to be recognized, combined with the use of the substances regarded as disinfectants. (*U.*)

B.—Questions as to Quarantine.—I. *Land Quarantine.* Holding that land quarantines are impracticable and useless, on account of the numerous and daily increasing means of communication; holding, also, that they compromise seriously commercial interests, the conference rejects them. (Yes, 13, Germany, Austria, Hungary, Belgium, Denmark, Great Britain, Italy, Norway, Netherlands, Persia, Roumania, Russia, Sweden; No, 4, France, Greece, Portugal, Servia; abstaining, 2, Luxembourg, Switzerland.)

II. *Maritime Quarantines.* 1. *Measures to be taken out of Europe.* With the object of preventing further invasions of cholera in Europe, the conference approves the measures recommended by the Constantinople Conference (1866), particularly the measures of quarantine suggested in the Red Sea and the Caspian Sea. The organization of these measures should be of the most complete description, and such as to satisfy the most rigorous principles of hygiene.

2. *Measures to be taken in European Ports.* When cholera has invaded Europe, the conference recommends the subjoined system of medical inspection; but in the case of States which prefer to maintain quarantine, it submits the principles upon which it should be regulated:—

(*a.*) *System of Medical Inspection.*—(1.) There should be established in each port open to commerce a sanitary authority formed of physicians and local representatives, aided by a proper staff. The number of members in each of these different categories will vary according to the importance of the port; but the number should be sufficient to permit of the measures exacted with regard to ships, crews, and passengers being carried out rapidly under all circumstances. The principal officer of the sanitary authority will always be kept informed through official sources of the sanitary state of all ports infected with cholera.

(2.) Ships arriving from clean (healthy) ports, and which, according to the oath of the captain, have not touched in the course of their voyage at an intermediate suspected port, or communicated directly with a suspected ship, and in which during the voyage, no actual or suspected case of cholera has occurred, will be admitted to free pratique.

(3.) Ships arriving from a suspected or infected port, and those coming from unsuspected ports, but which, during the voyage, have had intermediate compromising relations, or on which suspected cases of, or deaths from, cholera may have occurred, will be submitted, on arrival, to a rigorous medical examination, in order to determine the sanitary state of the crew and passengers.

(4.) If it results from the medical examination that no case of sickness or the corpse of any person dead from cholera exists on board, the ship, with al it contains, will be admitted to free pratique; unless cases of cholera, or of a suspicious nature, have occurred during the voyage, when the ship, the clothing, and the luggage of the crew and passengers will be submitted first to a thorough disinfection, although both crew and passengers be then free from cholera.

(5.) If any suspected case of cholera, or death from cholera, be found on board, the sick will be at once removed to a lazaret or to an isolated place provided for the purpose, and the dead will be cast into the sea with customary precautions, or will be buried after fitting disinfection; the passengers and crew will be thoroughly disinfected, and the ship itself will also be disinfected after the removal of the passengers and such portions of the crew as may not be necessary for the disinfection and charge of the vessel. The clothing and luggage of the sick, and also the healthy passengers, will be subjected, in special premises and under rigorous control of the sanitary authority, to a thorough disinfection. After this disinfection, the property of the passengers and crew will be restored to them, and they will be admitted to free pratique.

(6.) The merchandise landed will be admitted to free pratique, with the exception of rags and other susceptible objects, which will be submitted to thorough disinfection.

(*b.*) *System of Quarantines. Arrivals from Infected Ports.*—(1.) Arriv

from infected ports should be submitted to from one to seven full days' observation, according to circumstances.

(2.) *Suspected Ships.* If the sanitary authority is satisfied that no case of cholera or of a suspicious nature has occurred on board during the voyage, the duration of observation should be from three to seven days, dating from the time of the medical inspection. If, however, the voyage has lasted at least seven days, the time of observation may be reduced to twenty-four hours, for the examination and disinfection which may be judged necessary. In cases of this category the quarantine of observation may be completed on board if no case of cholera or any suspicious sickness has occurred, and the hygienic condition of the ship be good. In such cases unlading of the ship is not necessary.

(3.) *Infected Ships.* If any case of cholera or of suspicious sickness has occurred during the voyage, or after the arrival, the duration of observation for the healthy should be seven full days, dating from their isolation in a lazaret or other place provided for them. The sick should be landed and subjected to proper treatment, in an isolated locality set apart for them, and separated also from the place where the healthy undergo observation. The ship and all objects in it susceptible of retaining infection are to be submitted to a thorough disinfection, after which the persons remaining on board the ship will be subjected to seven days' observation.

(4.) *Arrivals from Suspected Ports.* Arrivals from suspected ports—that is to say, from ports adjoining and having free communication with a port where cholera exists—should be submitted to observation not exceeding five days in duration, if no suspicious sickness has happened on board.

(5.) *Various Regulations.* Ships carrying emigrants and pilgrims, and generally all ships considered peculiarly dangerous to the public health, may, under the conditions previously noted, be subjected to special precautions, to be determined by the sanitary authority of the port of arrival.

(6.) When the local resources do not permit of the measures herein prescribed being carried out, the infected ship should be sent to the nearest lazaret, after having received such aid as she may need.

(7.) A ship arriving from an infected port, which has put into an intermediate port, and received there free pratique without having performed quarantine, is to be considered and treated as arriving from an infected port.

(8.) In cases of simple suspicion, measures of disinfection are not strictly requisite, but they may be carried out if the sanitary authority thinks fit.

(9.) A port in which cholera prevails epidemically should not carry out quarantine properly so called, but should solely have recourse to measures of disinfection.

(*c.*) *Regulations common to the Two Systems. Medical Inspection and Quarantines.* (1.) The captain, the medical officer, and the officers generally should be required to declare to the sanitary authority all that they know with regard to suspicious sickness among the crew and passengers, subject to penalty in the event of a false declaration or of deliberate concealment. It is to be desired that an international agreement should be come to on this subject.

(2.) The disinfection either of luggage or of ships will be effected in such manner as the competent authorities of each country may determine.

(Yes, 21; abstaining, 1—Spain.)

The conference expressed a wish that a penal law applicable to sanitary contraventions should be enforced in the Ottoman Empire, by 15 affirmative votes to 4 negative, 3 States abstaining.

III. *River Quarantines.* All the arguments advanced to prove that land quarantines are impracticable and useless in preventing the propagation of cholera, apply equally to river quarantines.

The measures recommended in the system of medical inspection by the conference can be adopted for ships in rivers, having cholera on board.

Ports at the mouths of rivers come within the category of maritime ports and the measures recommended for these ports consequently apply to them (Yes, 19; abstaining, 3—Servia, Turkey, Egypt.)

CONTENTS.

Anatomy and Physiology.

Congenital Malformations of the Lower Jaw. By Dr. Alexander Ogston 193
The Use of the Ligamentum Teres of Hip-Joint. By Mr. W. S. Savory, F.R.S. . 193

Materia Medica and Therapeutics.

On Sulphide of Potassium, Sulphide of Sodium, and Sulphide of Calcium. By Dr. Sydney Ringer 195
On the Physiological Action of Arsenious Acid. By Prof. Boehm 198

Medicine.

On the Presence of Abnormal Cells in the Blood in Relapsing Fever. By Prof. Ponfick 199
On the Use of Trimethylamine in the Treatment of Acute Articular Rheumatism. By Dr. G. Peltier 201
The Urine in Addison's Disease. By Rosenstirn 202
On Sugar in Œdematous Fluids. By C. Bock 202
On Auditory Vertigo (Ménière's Disease). By Prof. Charcot. 203
General Paralysis supposed to be of Syphilitic Origin cured by Iodide of Potassium. By Dr. Buzzard 205
On Phosphorns in Melancholia. By Dr. S. W. D. Williams 206
Laryngeal Phthisis. By Sommerbrodt . 207
On the Course of Severe Lung Affections during Pregnancy. By Dr. A. Wernich . 208
On a Peculiar and Dangerous Affection of the Respiratory Organs in Children. By Dr. Finch 208
Treatment of Hooping-cough. By Dr. Mascarel 209
On Peripleuritis. By Bartels . . . 209
On the Liquids Effused into the Pleura. By Dr. Méhu 210
On the Use of Ipecacuanha Enemata in Infantile Cholera and Phthisical Diarrhœa. By M. Bondon 211
On Pseudomembranous Enteritis. By M. Raynaud 211

Surgery.

Treatment of Sebaceous Tumours of the Scalp. By Mr. Henry J. Tyrrell . . 212
On Bromide of Potassium in Alcoholic Amblyopia. By Dr. Quaglino . . . 212
On Rhinoplasty by a Double Flap. By M. Ollier 213
On Extirpation of the Tongue after Ligature of the Lingual Artery. By Dr. Weichselbaum 214
Osteoma of the Frontal Sinus. By J. Arnold 216
Tracheocele, or Hernia of the Trachea. By Dr. Devalz 216
Punctured Wound of Kidney. By Dr. J. J. Castellanos 218
On Retroperitoneal Hernia, and the Anatomy of the Peritoneum. By Professor Waldeyer 214
On Angioma of the Glans. By Dr. Parona 220
Total Transparency in Hydrocele. By M. Nicaise 221
Penetrating Gunshot Wound of the Pelvis, with Perforation of the Bladder and Rectum. By MM. Geoffroy and Delaissement 222
On the Passage of Hairs from the Bladder. By Dr. Sewell 222
On Traumatic Aneurism of the Dorsalis Pedis Artery: Anomalous Course of the Anterior Tibial. By M. Azéma . . . 223
On Ligature of the Internal Iliac Artery, for Fungus Hæmatodes of the Sacro-iliac Synchondrosis. By Dr. Oppizzi . . 224
On Partial Fracture of the Tibia in an Adult. By Dr. Menzel 224
Resection considered as a Remedy for Abduction of the Great Toe—Hallux Valgus—and Bunion. By Dr. A. Rose . . 225
On Intra-buccal Resection of the Inferior Dental Nerve after Paravicini's Method; Recovery. By Dr. Mosetig-Moorhof . 226
Meyer on Articular Neurosis. By Moritz Meyer 227
Carbolized Gut Ligatures. By Mr. Callender 228

Midwifery and Gynæcology.

Premature Rupture of the Bag of Waters. By Dr. Hugenberg 228
On the Means employed for the Prevention and Treatment of Puerperal Diseases at the Preston Retreat. By Dr. William Goodell 229
On Puerperal Tetanus. By M. Blachez . 233
On Tincture of Eucalyptus Globulus in Puerperal Affections. By Dr. Osterloh . 234
On Luxation of the Right Sacro-Iliac Synchondrosis. By Dr. Bille 234
On a Case of Adherent Ovarian Cyst, cured by Injection of a Solution of Carbolic Acid. By Dr. Edward Martin . . . 235

Medical Jurisprudence and Toxicology.

On Poisoning by Osmic Acid. By M. Raymond 235

Hygiene.

Quarantine in Relation to Cholera. Conclusions of the International Sanitary Conference 236

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

SUPPLEMENT TO

THE MEDICAL NEWS AND LIBRARY.

No. 384. (*For List of Contents see last page.*) December, 1874.

Anatomy and Physiology.

The Physiology of the Kidney.

M. Charcot, in a lecture on the Physiology of the Kidney (*Le Progrès Médical*, No. 36), refers to some experiments recently performed by M. Heidenhain, the result of which has been to confirm in a remarkable degree Bowman's well-known theory of the function of the Malpighian bodies and of the convoluted tubes respectively. Bowman believes that, while the Malpighian bodies are the main outlets for the watery part of the urinary secretion, the peculiar solids of the urine are secreted by the gland-cells which line the convoluted tubes. In opposition to this theory, Ludwig and others suppose that all the constituents of the urine are secreted in a very diluted state by the Malpighian bodies alone, while the function of the tubular portions of the kidney is to absorb the excess of water. It has always appeared to us that, while Bowman's theory is consistent with the anatomical facts, the theory of Ludwig is consistent neither with facts nor with physiological analogies. M. Heidenhain's experiments, as we have said, are confirmatory of Bowman's theory. The living kidney has a strong affinity for indigo; so that, when an alkaline solution of sulphate of indigo has been injected into the blood of a living animal, the urine and the kidneys quickly become tinged by the colouring matter. By varying the conditions of the experiment, M. Heidenhain found that he could determine the exact part of the glandular structure by which the colouring matter of the indigo was excreted.

The effect of dividing the spinal cord below the medulla oblongata, while artificial respiration is performed, is to cause complete suppression of urine; but sulphate of indigo, having been injected into the blood, is found to have given a blue tinge to the convoluted tubes, while the Malpighian bodies and the straight tubes remain untinged. The colouring matter of the indigo is found in those portions of the kidney which are believed to perform the true excretory function. But the analysis was carried further. If the animal were killed ten minutes after the injection of indigo into the blood, the colouring matter was found only in the cells of the convoluted tubes, while the clear canals within the tubes were free from colour; but, if an hour or more had elapsed before the death of the animal, the colour was found to have passed from the gland-cells into the canals of the tubes, where, in the absence of water to remove it, it formed a crystalline deposit.

M. Heidenhain performed other experiments with similar results. Thus the effect of ligaturing the ureter is to cause complete suppression of urine. If, after this result has been obtained, indigo be injected into the blood, the gland-cells of the convoluted tubes become tinged precisely as in the experiment before described. These experiments show that the secretion of the colouring matter by the kidney takes place when the watery secretion is suppressed; and this separation of the colouring matter is effected by the gland-cells which line the convoluted tubes. It is in the highest degree probable that the solids of the urine are secreted in like manner by the same cells. M. Heidenhain found that, after the injection into the blood of a concentrated solution of urate of soda, the salt was deposited in the form of yellow granules within the convoluted tubes, while the Malpighian bodies contained no trace of the deposit.

This result of injecting urate of soda is analogous to what is normally found in birds, whose urine is mainly composed of granules of urate of soda; and Von Wittich has observed that, while the granular salt may be found within the gland-cells of the convoluted tubes, the granules are never seen within the Malpighian bodies.

These experiments render it in the highest degree probable that, while the specific urinary constituents are secreted by the gland-cells which line the convoluted tubes, the Malpighian bodies pour out water to flush the tubes, and the straight tubes of the medullary portion of the kidney act as conduits for the urine which has been secreted in the cortical portion of the gland.—*British Medical Journal*, Sept. 19, 1874.

—

On Recurrent Sensibility.

MM. Arloing and Tripier (*Gazette Hebdomadaire*, No. 36, 1874) publish the results of some new researches on recurrent sensibility, and suggest applications of those results to pathology and operative treatment. The authors had previously sought to interpret the fact of the persistence of sensibility in the integument of the human hand after section of the median, radial, and ulnar nerves, and had demonstrated the following points: the existence of recurrent sensibility in cutaneous nerves; the extension of the influence of sensory nerves of the skin beyond their zone of anatomical distribution, and that the persistence of sensibility in the peripheral extremity of the divided nerve, and the persistence of sensibility in the corresponding integument, are always associated phenomena. The exactitude of these data having been verified in the upper and lower extremities, the authors next proceeded to examine whether they were applicable to the nerves of the face. Analogous researches made on the chief branches of the trigeminal gave very variable results. They then commenced a series of experiments based upon the fact that the nerve-tubules are always found intact at the peripheral extremity when sensibility persists, and that, on the other hand, the tubules are degenerated when sensibility cannot be demonstrated. The researches were first made on the facial nerve of soliped animals, the peripheral extremity of which, according to M. Chauveau, is always found insensible, after section has been made below the parotid. Repeated experiments made by MM. Arloing and Tripier gave identical results, and on examination of the peripheral extremity all the nerve-tubules were found to be degenerated. In one case, where the section was made in front of the masseter muscle, compression of the peripheral extremity revealed doubtful sensibility; after a lapse of time, some intact fibres were found here. This result was due, the authors think, to the section having been made nearer the periphery. In order to prove whether this hypothesis was correct they instituted the following experiments. The inferior branch of the facial nerve of a mule having been exposed behind the labial commissure, the nerve was divided and its peripheral extremity isolated over an extent of two centimetres. At the end of two hours the peripheral extremity was again isolated, and when the nerve was more compressed the animal drew back its head and depressed forcibly the lower lip. Subsequent microscopical examination of hardened portions of the divided nerve showed about twelve intact nerve-tubules at the peripheral extremity, and about eight degenerated nerve-tubules at the central extremity. Experiments were next made on different branches of the trigeminal nerve in various animals. The authors assert that sensibility is very evident at the peripheral extremities of the supra-orbital and infra-orbital, and the mental nerves of the dog after division. It is less evident in the supra-orbital and infra-orbital branches of the horse and rabbit, but is well marked in the mental nerve of those animals, a fact due to the more considerable number of intact nervous tubules at the peripheral extremity of the last-mentioned nerve.

In applying those experimental data to pathology and operative treatment the authors lay down the following propositions. 1. It being admitted that all nerves possess recurrent nerve-tubules, it may be supposed that special morbid conditions resulting from this anatomical disposition will present themselves

equally in all nerves. Thus one may conceive the existence of neuralgiæ of the facial as of the trigeminal (the so-called functional neuralgiæ for example); 2. Since, speaking generally, the recurrent fibres are the more numerous, the nearer one approaches to the periphery where the anastomoses are more numerous, whilst, as one approaches the main trunks, the fibres diminish in number and finally disappear, there ought to be marked differences in the mode of action, and the manifestations of the morbid agent, according as it affects the trunks or the periphery. The nearer the morbid agent is placed to the periphery, the greater the intensity and diffusion in its mode of action, and in the manifestations to which it will give rise; and, on the other hand, the nearer the morbid agent to the trunk of the affected nerve, the less intense will be its mode of action and its manifestations. The authors hold with the majority of pathologists that, except in cases of compression, neuritis is very rare in neuralgia; they believe that it may arise from morbid changes in the proximal portions of nerves, but they do not think that it is absolutely necessary to admit these changes in any degree in order to explain the extension or diffusion of morbid phenomena, an exact notion of which may be formed by taking into account the peripheral anastomoses. The authors concluded that in the treatment of neuralgia the indications and operative proceedings ought to be much modified. Wishing to remain within the region of general considerations, they content themselves with these statements: 1. For motor-nerves or nerves supposed to be motor, the trunks in question ought not to be divided, but rather the neighbouring sensory branches which supply to the former recurrent nervous branches; 2. For sensori-motor or sensory nerves, it is necessary to find out whether the morbid agent affects the trunk or its branches. In the former case, simple neurotomy would suffice to interrupt the transmission of morbid impressions, whilst in the latter recourse should be taken to associated sections, made so as to interrupt the different modes of transmission, and at the same time cause the least possible disorder.—*Lond. Med. Record*, Oct. 21, 1874.

Materia Medica and Therapeutics.

On the Therapeutic Properties of Bromide of Camphor.

In the number of this Journal for September (page 103) we gave the results of Dr. Bourneville's physiological experiments with bromide of camphor; since then Dr. Bourneville has made his therapeutical experiment at the Saltpêtrière, under the direction of M. Charcot. The form of the drug administered was the same as that which has been employed up to the present time in all the hospitals of Paris—Dr. Clin's bromide of camphor dragées. In addition to the physical properties of bromide of camphor already mentioned, its characteristic odour and disagreeable flavour, it may be noted that it is insoluble in water, and changes when exposed to the air, so that the dragées are the best form in which to administer it. Each dragée contains exactly ten centigrammes (1½ grain) of the bromide of camphor, covered by a thin coat of sugar, which preserves the drug, masks both its odour and flavour, and renders it easy of deglutition. These dragées become rapidly disintegrated in the stomach. Among the cases already published we find the following:—

In one case, a woman aged sixty-two, suffering from heart disease attended by insomnia, twenty centigrammes only (two dragées) were efficacious. In the case of a woman aged forty-six, who was suffering from progressive locomotor ataxy, in whom insomnia alternated with disturbed sleep troubled by nightmares, it was necessary in order to obtain a decided improvement to administer eighty centigrammes (eight dragées). A woman aged forty-six, who for six years suffered from chorea, who had not been able to walk for a year, and was

tormented by such incessant and violent movements that they drew her out of her bed, and who was also unable to sleep, had administered to her as high a quantity as 120 centigrammes (twelve dragées). Her sleep became calmer, she remained quietly in her bed, could walk a little, and often remained fifteen or twenty minutes undisturbed by choreic movements.

Three women under the care of M. Charcot, of the respective ages of fifty, sixty, and sixty-seven, were attacked by paralysis agitans, and pronounced incurable. They took from twenty centigrammes to one gramme (three to fifteen grains) of bromide of camphor, daily, in quantities varying from one to ten dragées, in progressive doses. A marked amendment followed.

Bourneville (*Progrès Médical*) has submitted the efficacy of bromide of camphor to a severe test by choosing as a field for his experiments a hospital for incurables. If it succeeded in these obstinate cases, still greater was the probability that it would act beneficially where the conditions were more favourable, and the illnesses of more recent origin. A patient in the Hospital de la Pitié, twenty-four years of age, suffering from acute rheumatism, was attacked by chorea in the left arm. He was cured in five days. The dose was sixty centigrammes (nine grains) daily, given in six dragées.

In the same hospital, a woman, aged twenty-two, was attacked by violent hysterical chorea, with hysterical vomiting. The dose given was first forty, and then sixty centigrammes, daily. Her cure was rapid.

A young woman, a patient in the Necker Hospital, suffering from induration, with insufficiency of the mitral valve, showed symptoms of poisoning from the first day digitaline was administered to her. The digitaline was discontinued, and the bromide of camphor substituted. The heart-beats diminished in frequency and became regular. The medicine was relinquished, and the improvement obtained continued the same a fortnight later.

A man in the same hospital, presenting the same conditions, received equal relief.

A young woman, suffering from nocturnal incontinence of urine, had taken bromide of potassium during fifteen days without any amendment. Four dragées of the bromide of camphor cured this painful infirmity, at least for the time being. The patient is still under treatment.

A patient who was tormented by nervous cough, which entirely deprived her of sleep, took two dragées, night and morning, and the symptoms were abated in a few days.

At the Cochin Hospital a case of paralysis agitans was considerably calmed by a daily dose of four dragées. The patient was a woman, about forty years of age.

At the present time our knowledge of the physiological action of the bromide of camphor, and of its value as a therapeutic agent, is imperfect. It is, nevertheless, evident that the administration of this drug has been followed by incontestibly beneficial results, which have been corroborated by observation in a number of the hospital wards. Bromide of camphor is a well-defined substance, having a characteristic crystallization, smell, and flavour; and a powerful sedative both to the nervous system and circulation, acting as a hypnotic and regulating innervation.

It would be premature to specify the precise dose which ought to be administered. In the generality of ordinary cases it has been given to adults in doses of from twenty centigrammes to one gramme, a dose two or three times during the morning, a dose before dinner or with it, and, finally, another before going to bed. The dose naturally varies according to the illness and the special symptoms presented.—*London Med. Record*, Oct. 7, 1874.

On the Action of Strychnia.

F. A. Falck (Volkmann's *Sammlung Klinischer Vorträge*, No. 69) says that strychnia is absorbed and acts most quickly when injected into the blood, more slowly from the subcutaneous cellular tissue, rectum, and conjuctiva, and more slowly still from the stomach. Absorption will occur through the lymphatics,

even when all the vessels of the part to which it is applied have been carefully ligatured. It is often supposed to be absorbed from the bladder, but, according to the author's experiments, this is not the case. Many cases of strychnia-poisoning are either suicidal or homicidal, but not a few are accidental. Most of these are due to apothecaries either dispensing larger doses than have been prescribed, or substituting strychnia instead of other medicine. Some are due to patients taking too much of the prescribed medicine; but others are due to the fault of the physician, who has either prescribed too large doses, or overlooked the cumulative action of the remedy, or prescribed badly. In one interesting case of the last sort, the physician ordered nitrate of strychnia in solution with too small a quantity of solvent. The strychnia, consequently, formed a sediment at the bottom of the vessel, and, on being swallowed, caused the patient's death. In another case, a most instructive one, nitrate of strychnia was prescribed with iodide of iron in solution. The iodine combined with the strychnia, and the sparingly soluble iodide of strychnia formed a sediment, which, when swallowed, caused death. A curious case of poisoning occurred in the person of a doctor in Berlin, who had received a quantity of arrow-poison from Java. He wished to ascertain its physiological action, and, instead of experimenting on animals first, he swallowed three grains of it himself. For a wonder, he recovered, the substance containing no less than 60 per cent. of strychnia. The symptoms of strychnia-poisoning in man are, first, quickened respiration, and afterwards, convulsions of a tetanic character. Sometimes there are general convulsions, but no tetanus. The shortest time in which tetanus has occurred is five minutes, and death in ten. The longest time is tetanus in two and a half hours, and death in six. Where recovery takes place, the convulsions may last twelve hours. The symptoms are similar in mammals, birds, and batrachia. In snakes and white fish there is disturbed respiration, with quivering. In regard to the action of strychnia on single organs, it has been found that it does not paralyze the inhibitory centres of Setschenow; it stimulates the vaso-motor centre, causing contraction of the arteries and increased blood pressure; it renders the olfactory and optic nerves more sensitive, increasing the sense of smell, and the sharpness of vision, as well as enlarging the field of vision for blue and red. In poisonous doses, it produces hyperæsthesia of the retina in dogs. The pupil is dilated to its maximum during the tetanic convulsions, and is normal in the intervals. Strychnia has little action on the heart. It lessens the power of the blood to absorb oxygen. It slightly raises the temperature of the body. It causes contraction of the spleen, and acts upon that organ through the splanchnics. It is said to increase the secretion of urine. When given to a pregnant animal, it exerts but little action on the fœtus in utero. According to the author, the common idea that strychnia acts primarily on the spinal cord is erroneous. On the contrary, it acts primarily upon the brain, its action being exerted on the vaso-motor centre; on the inhibitory centre for the heart; on the respiratory centre so powerfully, that the irritation is propagated from this to the whole system of voluntary muscles; and lastly, on the reflex apparatus of the spinal cord. These actions excite secondary reflex stimuli, starting from the spinal cord and associating themselves with the cerebral ones. After this has lasted some time, the blood becomes poor in oxygen, and this deficiency of itself acts somewhat like strychnia, and the poisoned animals die of asphyxia. The largest fatal dose of strychnia is four milligrammes of the nitrate in a child, and between fifteen and thirty of the sulphate in an adult. In mammals 0.6 milligramme of nitrate of strychnia per kilogramme of body-weight is a fatal dose; for birds 2.0 milligrammes, for frogs 2.1 milligrammes, and for white fish about ten milligrammes. Frogs therefore require a larger dose than mammals instead of being much more susceptible to its action as is generally supposed. All salts of strychnia have almost exactly the same action. After reviewing all the remedies hitherto proposed for poisoning by strychnia, the author concludes that the treatment, if convulsions have not set in, is to empty the stomach by emetics or the stomach-pump, to wash it out with decoction of galls, and combat the convulsions by chloroform. If convulsions have already begun, chloroform must be given at once and the intestinal canal emptied

afterwards. When the poison has been absorbed from a wound, it should be washed, excised, or cauterized. Death from strychnia cannot be diagnosed with certainty from *post-mortem* appearances. The best method of detecting its presence in the stomach or elsewhere is that of Dragendorff. Strychnia is not destroyed by putrefaction of the tissues. Its chief medicinal uses are in paralyses, motor or sensory. It is also employed in chorea, epilepsy, and writer's cramp, dyspepsia, and constipation. The best form is pills, or, still better, subcutaneous injection. The dose for use in the latter should not exceed eight milligrammes.—*Lond. Med. Record*, Aug. 12, 1874.

—

Note on the Nitrite of Amyl.

As the result of some observations published in the *Practitioner* for September, 1874, by Dr. J. Crichton Browne, Medical Director, West Riding Asylum, it appears that nitrite of amyl, when inhaled during a state of unconsciousness, has a specific action upon the motor centre of the mouth, and calls into action, by preference, the muscles of the lips and lower jaw. The mode in which it performs this action, whether reflexly or through the agency of the vaso-motor apparatus, is as yet only a subject of speculation. The fact, that the movements which it evokes are consentaneous with the appearance of flushing of the face, gives probability to the latter hypothesis; while, on the other hand, one observation, that when administered hypodermically the nitrite failed to induce yawning in a case in which it had induced it when inhaled, seems favourable to the other view. But whatever may be the explanation of the action in question, there can be no doubt that it is a significant fact, and worthy of further investigation.

—

On the Antiseptic Properties of Salicylic Acid.

The physiological action of this substance has been little studied, though its physical and chemical properties are pretty well known. From the fact that it can be readily composed from carbolic acid and carbonic acid, and that, on heating above the boiling point, it is decomposed into these two substances, Professor Kolbe, of Leipzic, was led to expect that, like carbolic acid, it would oppose processes of fermentation and putrefaction, and prove a good antiseptic. Along with Professor Thiersch, he made some experiments in this direction, which he has recently described to the Saxon Academy. (See Dingler's *Polytechnisches Journal*, 2d July number.)

To ascertain how salicylic acid acted on ferments, he first dissolved some amygdalin in water, mixed with the solution a small quantity of the acid, and added an emulsion of sweet almonds. In a quarter of an hour, by which time a second mixture of almond emulsion and amygdalin, without salicylic acid, smelt strongly of bitter almond oil, the mixture containing the acid had not the least trace of such a smell. If the proportion of salicylic acid be very small, the smell will appear after some hours; but, with even a small quantity, no smell will be perceptible after twenty-four hours.

Mustard-seed powder, which in lukewarm water soon gives a strong smell of mustard oil, gives no such smell if a very little salicylic acid be previously mixed with it.

If a solution of grape sugar be mixed with a little salicylic acid (a thousandth at the most), yeast has afterwards no action, and a sugar solution already in fermentation ceases to ferment when a small quantity of the acid is added.

Again, some Leipzic beer of excellent quality was divided among several wide glass beakers (1000 grammes to each), and kept fourteen days at a temperature varying between 68° and 75° Fahr., the vessels being covered with loose paper. To one vessel was added (and mixed with the beer) 0.2 gramme of salicylic acid; to a second, 0.4 gramme; to a third, 0.8 gramme; to a fourth, 1.2 gramme; in another glass the beer remained unmixed. This last began at the end of the second day to deteriorate, and became coated with a

layer of fungus. In the vessel with 0.2 gramme of salicylic acid, the fungus vegetation commenced on the third day; in the vessel with 0.4 gramme, on the fifth; in that with 0.8 gramme on the tenth; while the 1000 grammes of beer to which 1.2 gramme acid had been added, did not even after twelve days show any fungus vegetation. Thus a thousandth of salicylic acid, added to beer, suffices to preserve it from injury through fungus growth.

Next, fresh and pure cow's milk, with 0.4 per cent. of salicylic acid added, and left in an open vessel, at a temperature of 64.4° Fahr., was thirty-six hours later of curdling than an equal quantity of the same milk beside it, which was without salicylic acid. The addition of a little more salicylic acid delays the souring and coagulation still longer. The milk continues to taste well; the taste of the small amount of acid is not perceptible.

Some newly passed urine was divided into two portions, and kept several days in separate vessels. A little salicylic acid having been added to one portion, this was found on the third day still clear and free from the smell of ammonia; while the other portion was already far gone in decomposition and smelt strongly.

Fresh meat, rubbed with salicylic acid, will keep for weeks, in air. The author prepared large quantities of beef and mutton with the acid, put them in a large covered vessel, and a month afterwards he found them still quite fit for cooking. Most of the salicylic acid can be removed by washing, before the use of the meat. The remaining portion has a not unpleasant sweet taste, but it is hardly perceptible.

Professor Thiersch made some experiments in the Leipzic Hospital as to the antiseptic action of salicylic acid, and its use in surgery. He says that when strewn (either by itself or mixed with starch) on contused wounds not yet cleaned, and on scurfy gangrenous surfaces, salicylic acid destroys, for a long time, the putrid odour, without any inflammatory action of importance. In solution of one part of salicylic acid, three parts of phosphate of soda, and fifty parts of water, it favours the coating over of granulation-surfaces. As to its action on fresh wounds, the following data are communicated. During the operation the wound is kept under a spray cloud of salicylic acid in water (one in 300). The dressing of the wound consists of wadding, impregnated with salicylic acid in the crystallized state. The wadding is moistened with salicylic acid in water (one in 300), as also the strip of muslin by which it is held. Afterwards, a continuous dripping of the acid solution on the bandage, about eight drops in the minute, is maintained. After an amputation of the femur on April 27, under such treatment, the patient experienced no pain, nor swelling, nor fever. The first renewal of the dressing was on the sixth day. The secretion in the wound during these six days was without smell. With equally good results, Dr. Thiersch performed some other amputations. He is of opinion that salicylic acid has all the advantages of carbolic acid, without its inconveniences.—*London Med. Record*, Sept. 23, 1874.

At a late meeting of the Cincinnati Academy of Medicine, Dr. G. B. Orr stated (*Clinic*, Nov. 7, 1874) that he had given salicylic acid a fair trial, and had found it of great service in a number of cases. He used it as a disinfectant in a very bad case of dysentery, in which there was incontinence of feces, and in consequence the bed became the receptacle; the odour resulting was perfectly horrible, but by sprinkling a solution of salicylic acid of the strength of 1 gr. to 100 parts of water, the smell was entirely removed; not simply overpowered by virtue of its greater strength of odour, for it is odourless.

Dr. Orr again used it in a case of old ulcer of the leg that emitted a most offensive odour, with the effect of not only removing the smell, but it seemed to cleanse the parts so thoroughly that they took on healthy action and the ulcer rapidly healed.

Thirdly, he collected about an ounce of fecal matter, being part of the feces passed by a child suffering from chronic dysentery, put the feces into a large-mouthed bottle, and added about grs. 15 of the acid; at the end of forty-eight hours all smell had disappeared, and at the end of one month there did not seem to have been any change.

Fourthly, Dr. Orr has been making use of it in a compound fracture of the leg, where the injury to the soft parts was quite severe, and up to the present time there has been no suppuration at all, nor indication of it.

Medicine.

On the Hypodermic Use of Atropia in Muscular Rigidities, Rheumatic, and Myalgic.

Dr. J. C. Wilson, of Philadelphia, reports (*Phila. Med. Times*, Nov. 7, 1874) seven cases of muscular rigidity, rheumatic and myalgic, beneficially treated by hypodermic injections of $\frac{1}{60}$ of a grain of atropia, a method of treatment first suggested by Dr. Da Costa (*Penna. Hospital Reports*, 1868).

In the acute form Dr. Wilson has not found atropia beneficial. Hypodermics of morphia, on the other hand, have been serviceable in allaying the pain and inducing repose, but this quite independently of any local action. But later, when the disease has become chronic, or in some cases when it is from the outset of the chronic form and the element of spasm is present with more or less rigidity, atropia used locally is, as the cases show, of prompt and certain benefit. There seems the strongest reason to believe, both from clinical observation and from the researches of experimental physiologists, that the benefit arises from the direct sedative effect of the drug upon the nerve-filaments, and that it thus, by relieving the irritation, relaxing the tonic contractions, and putting an end to pain, enables the circulation and nerve-supply to resume their normal course and relations.

But after a long time, when permanent changes have taken place in the tissues, it is useless to hope that any treatment will restore to the muscles their suppleness and contractility. But even then much may be done by this means in relieving pain, and enabling the patient to avail himself of supplementary and auxiliary muscles in performing customary movements. The effect is the same whether the atropia be injected directly into the muscle or into the subcutaneous tissue overlying it.

On Auditory Vertigo (Ménière's Disease).

(*Concluded from page* 205.)

We now come to speak of the nature of the ear-disease. We have assumed that the labyrinth is affected, but how it may be affected is yet to be considered. It may suffer primarily or secondarily. There may doubtless occur hemorrhages in it just as these occur in the retina. Knapp strongly urges that aural diseases should be studied in close connection with eye diseases. If we find suddenly occurring nervous deafness, with or without other symptoms of Ménière's disease, there is certainly a possibility of hemorrhage in the labyrinth, and we should inquire into the state of the heart, arteries, and urine, to see if there be a condition for hemorrhage, as we should certainly do if we saw hemorrhages in the retina. Saying nothing further of pathological changes occurring in the labyrinth itself, we speak of other aural conditions which interfere indirectly with it. As the following quotation from Dr. Hughlings Jackson's paper already referred to (see *Medical Times and Gazette*, August 17, 1872, p. 169) is only a compilation, it may be given here, with additions, as a summary.

"Even if it be granted that the semicircular canals are the parts in fault in Ménière's disease, they may be only secondarily so; they may be, indeed, only suffering from some fault in the more external parts of the aural apparatus. Increased pressure (resulting from stoppage of the meatus by wax, by catarrh, acute or subacute, and purulent processes in the cavity of the tympanum),

transferred from the stapes to the vestibulum, must necessarily place the semi-circular canals in an abnormal state of pathological irritation"—(Tröltsch, op. cit.) in other words, the primary changes may be in the non-nervous part of the ear. In syringing an ear in which there is a hole in the membrana tympani, we have symptoms essentially like those of Ménière's disease. Dr. Gowers has recently pointed out that Bell's paralysis of the face sometimes comes on with vertigo; considering the relations of the portio dura nerve to the ear, this is an important observation. The reporter suggests that the vertigo may be caused by sudden paralysis of the stapedius, a muscle supplied by the portio dura nerve, and thus be owing directly to non-antagonized action of the tensor tympani. It is only in suddenly occurring cases that we can suppose symptoms of Ménière's disease to depend on primary changes in the labyrinth itself. Politzer (quoted and indorsed by Tröltsch, op. cit.) says, "If a person who has formerly heard well becomes suddenly deaf, or hard of hearing, with the symptoms of an apoplectic attack, and there is at the same time an uncertain and staggering gait, but there are no symptoms of paralysis in other nerve-tracts, and if the examination shows a normal membrana tympani and perfectly permeable Eustachian tube, we may believe, with great probability, that there is an affection of the labyrinth."—(Tröltsch, op. cit., p. 507.)

We now come to speak of the rare example of Ménière's disease recorded by Charcot. His patient was a woman fifty-one years of age. The vertigo was continual, and very strongly marked. It was present night and day, when lying down as well as when standing up, although in the latter position it was enormously exaggerated, as also when her bed was moved. But occasionally there were seemingly spontaneous aggravations. The following quotation gives a vivid account of her condition. "Sometimes in the midst of apparent calm the patient, as you will no doubt see, is all at once seized with a violent jump. If you ask her the cause of this brusque movement, she invariably replies that she has had an attack. And in fact there are in this patient, besides the vertiginous state which I have tried to describe to you, paroxysmal exacerbations of vertigo, which constitute a kind of attack. They seem to be chiefly characterized by the sensation of a brusque movement of translation, not of surrounding objects, but of the patient herself; a movement entirely subjective, and of which this jumping is the only outward sign. Consciousness is unaffected, and when the attack is over, the patient can describe what she has felt. Sometimes, and most often, it seems to her that she falls headlong forward, at other times the fall seems backward. Lastly, this is the most rare, there is the sensation of rapid rotation of the body round its vertical axis, this rotation being always from left to right. Whichever it be, the motory hallucination is always followed by great anxiety, pallor of the face, and cold sweats. Finally, nausea and sometimes vomiting ends the attack, after which the vertigo subsides, so to speak, to its normal state." The patient always has a whistling in her ears, but occasionally this is acutely increased. This exacerbation of the noise is a warning to her that an attack of vertigo is coming on, and that the jumpings are imminent.

For a long time the patient had had discharge from the two ears of pus mixed with blood. The right membrana tympani was thickened, the left was replaced by granulations, and on this side the hearing was considerably enfeebled.

Another remarkable feature was that the vertiginous state had been so severe and continued that for six years the patient had been obliged to keep her bed; before that time she had at intervals attacks but little marked; they became gradually more marked and nearer together until the vertigo and noises were, as stated, permanent, but occasionally exacerbated. It is mentioned that the patient has had attacks of hysterical convulsions, which, however, were independent of the attacks of auditory vertigo. At present the hysteria is only represented by incomplete left hemi-anæsthesia with ovaralgia of the same side.

We conclude this article by a reproduction of Charcot's remarks on it.

"In the first place, I shall show the intimate relation which exists between the sudden development of noises in the ear, or the rapid aggravation of these noises, and the outset of vertiginous sensations. In reality, one of the special characteristics of Ménière's vertigo is that it is always ushered in and accom-

panied by the noises in question. Doubtless the singing, buzzing, and whistling of the ear are very common phenomena, and accompany different kinds of vertigo besides that which is a symptom of Ménière's disease, but in this affection they acquire at the time of the attack a predominance and intensity which is certainly not found in other diseases. As patients say, the noise is harsh 'like the whistle of an engine,' or like the noise which will be made by 'shaking violently a sack filled with nails.' Again, it is compared to 'the firing of guns or of fireworks.' This noise is either exclusively or specially in one ear. In slight or recent cases it ceases with the attack of vertigo. But sooner or later, if the case be a grave one, it becomes persistent, continuing in the intervals in a milder form of singing and buzzing more or less annoying. Also the affected ear soon shows signs of more or less pronounced and permanent deafness."

After remarking in detail on the nature of the affection of hearing in different cases, Charcot says that there is reason to think, moreover, from the facts as a whole, that any pressure whatever exerted on the tympanum and propagated to the labyrinth by the chain of ossicles is sufficient to produce the symptoms of Ménière's vertigo.

"Considered, however, simply in the character of vertigo, it has some special characters. It is most frequently, if I may judge by the ten or twelve cases of my own, the sensation of a movement of translation of the entire body from behind forward, or from before backward, in a manner to give the patient an idea of a fall forward or backward as the case may be; again when there is added the sensation of moving round a transverse axis, an actual somersault, even a 'saut de tremplin.' Sometimes the body seems to rotate round a vertical axis either from left to right or from right to left. There are patients who in their different attacks think they have sometimes one, sometimes the other, of these modes of rotation. Remark that generally these movements are entirely subjective, real hallucinations, which only show themselves externally by a start, a movement of surprise, sometimes by the necessity the patient feels of clutching surrounding objects or sitting down. But it may happen that a fall actually takes place, and that the patient is violently thrown to the ground in the sense corresponding to the vertiginous sensation. I may cite, as an instance of this, the case of a lady, who in her attacks always felt thrown headforward, and who, in fact, in one of them, fell heavily on her face and broke the bone of her nose. I do not deny that the feeling of rotation or of moving is observed in vertigoes of the most varying kinds; but I believe I may say that they are not found in any so decided or so constant as in the vertigo of Ménière.

"It is important to observe that during the attack, whatever may be its intensity, the patient preserves absolutely perfect consciousness of his acts, and that when the first effects of the seizure are passed he can immediately, without any confusion, give an exact and detailed account of all he has experienced.

"Under the title of accessory phenomena I shall describe what follows. Almost always, nausea and vomiting mark the end of the attack. While the latter continues the face is pale, the skin cold and covered with perspiration, so as to produce an appearance of syncope rather than of 'coup de sang.' There may exist a transitory headache, more or less severe. There is never any embarrassment of speech or muscular spasm either of the face or limbs; never any tingling or numbness; no sensations whatever suggestive of aura; never any paralysis nor temporary paresis. At first, that is to say, when the disease of Ménière is yet but beginning, the vertigo appears under the form of distinct crises of short duration, separated by intervals of absolute calm, during which the symptoms of the local disease from which they arise continue alone. But in the natural course of things, as the affection progresses, the crises tend to approach and to be confounded with each other, so as in the end to constitute a permanent vertiginous state, so to speak, in the midst of which occur paroxysms more or less frequent, and which reproduce all the phenomena of the old attacks. The patient I have shown you offers a very decided example of the subintrant crises, which are usually observed, I repeat, in patients who have for years been the subjects of the grave forms of Ménière's disease.

"You will easily understand, gentlemen, the use which may be made of all the elements which I have been bringing together in the interests of diagnosis.

. . . I reserve for another occasion what is known most positively relative to the pathological anatomy and theory. In what concerns the latter, the experiments of Flourens, of MM. Brown-Séquard, Vulpian, Czermak, Gall, Lœwenberg, which consist in producing in animals various lesions of the semicircular canals, have furnished, we do not forget, important results. To-day, I shall conclude by a few words with regard to prognosis and therapeutics.

"It is very remarkable that, as a rule, the grave lesions of the nervous centres, which are so frequently the consequence of different diseases of the internal ear, do not usually occur in Ménière's disease, even when the latter has attained its highest degree of severity. The course of things in the most decided cases is this. The deafness gradually increases, till at a certain moment it becomes complete, absolute.

"The vertiginous symptoms and the whistlings go on, so to speak, at an equal pace, *i. e.*, they gradually decrease and finally disappear. They did so, for example, in the case of the patient of whom I have spoken above, and who in one of his attacks fell on the Place de la Bourse. Subject to the whistlings and vertigo since 1863, he now finds himself quite free from them. But, on the other hand, he is now deaf, so deaf that though he lives close to the Champ-de-Mars he heard absolutely nothing of the explosions of powder in the Avenue Rapp (1871). I am often asked if it would not be well to seek the means by some intersection, of hastening the denouement, at least in grave cases when, for instance, the patients are reduced by it to the lamentable state you have seen in the patient Gir——. It is a point which I offer for your consideration.

"Whatever it be, I must not conceal from you that Ménière's disease often resists the best-directed treatment. I have, however, several times seen vertigo occurring with catarrh of the tympanum decrease, and even disappear, under the influence of the common treatment of the latter affection.

"Here I may remind you of the very interesting case observed by M. Hillairet in which vertigo completely ceased after the opening of an abscess in the middle ear. The application of energetic revulsives must not be neglected in the severe cases. *Apropos* of these, I will describe a case I saw lately. One of our brethren in the provinces, now forty-four years of age, felt for the first time six years ago some heaviness of the head and buzzing of the ears returning in paroxysms. Some months later, while driving in the country alone, he all at once felt insupportable whistling in the left ear, and at the same time his head becoming heavy seemed to drag him forward. He was obliged to get out of his carriage, and to lie down for an instant upon the road. Nausea, followed by vomiting of glairy matter mixed with bile, ended the attack. Attacks of the same kind have frequently occurred since, and in the mean time the hearing of the ear affected has become feebler. Examination discovers nothing on this side except a certain degree of thickness of the membrane of the tympanum. All treatment tried having failed, I proposed the application of 'pointes de feu' on the left mastoidal region. The applications were repeated three or four times. After this treatment all the symptoms were obviously diminished."—*Lond. Med. Record*, April 29, 1874.

—

On Certain hitherto Unrecognized Movements of the Extremities in Hemiplegics.

A paper in No. 36 of the *Berliner Klinische Wochenschrift*, by M. Bernhardt, on a special kind of consentaneous muscular movements in hemiplegics, should be studied side by side with one by Dr. Westphal in the last number of the *Archiv für Psychiatrie*. The observation is original, and, so far as we know, forms a new contribution to the incomplete science of nerve action.

Westphal begins by mentioning a few of the various movements that may occur in the limbs of hemiplegics withdrawn from the influence of the will, such as lifting of the shoulder in yawning, sighing, or in voiding excrements. Besides these, it may happen that a hemiplegic, in wishing to contract certain muscles, puts in action their antagonists instead, a phenomenon described some time since by Hitzig. The especial peculiarity of the movement under notice

is, that *when the patient stretches for instance one or more fingers, or the hand of the sound extremity, the movements are executed in an identical manner on the side affected by hemiplegia.*

A brief *résumé* of one of the cases given will illustrate the subject. A man, aged twenty-five, paralyzed from his youth on the left side, was admitted to the Charité. Up to his twelfth year the hemiplegic side was subject to cramps, not, however, attended with loss of consciousness. Movements of the hand and fingers on the left side were impossible, unless the corresponding movements were made with the right extremity. As soon as the patient made any movement with the sound (right) side and fingers, this was repeated on the left, and it was quite out of his power to prevent it. A most singular impression was produced by this muscular echo—if the phrase may be allowed; thus, when on one occasion he scratched an itching spot on the face with his right hand, the left was raised for the same purpose. When *passive* movements of the right hand were made, the "echo" was not observed. The muscular sensibility was entirely absent, so that he could not hold anything in his hand without keeping his eyes fixed upon it; the moment he took them off the object dropped. This peculiarity is not invariably associated with the phenomenon in question. The toes and foot of the left side partook of the same morbid "echo." What is the interpretation of these identical bilateral movements? Let it not be forgotten that Müller, of Coblentz, in 1844, noticed the tendency of muscles to act in groups of association. He remarks that practice is requisite for keeping one eye open, that many are unable to move the muscles of one side of the face only, and that muscles of the extremities are to a less degree so implicated. In early life and in old age the same thing is seen. Westphal thinks that the pathological process which attacked the hemisphere of the side opposite to the paralyzed one spared the large motor ganglia. Thus in left hemiplegia a part of the right brain would be so affected as to be unable to convey will-impulses to the left extremities; from the left brain impulses would continue to be directed on the motor ganglia, and thence through the decussation of the pyramids to the nerves of the right side. But the excitation set up by the influence of the will in the left brain is carried by the commissural fibres to the other side, where, meeting with the still intact large ganglia, it begets a movement in the left extremities, similar to that on the opposite side. The reason why, under ordinary physiological conditions, the same thing does not happen is, that by practice they are suppressed, owing to a restraining influence from the other hemisphere. When elderly persons suffer hemiplegia, these consentaneous movements are not seen, because, according to the above theory, the motor ganglia are affected, whereas, in the affections of childhood, parts only of the hemispheres are affected, as pathology has proved over and over again.

M. Bernhart's remarks are on the case of a boy who, when eight years old, suffered from convulsions after scarlatina, and had right hemiplegia and aphasia, his stock of words consisting only of "yes" and "ah." The movements in the right shoulder and elbow were slower and made with less force than those in the left; still, to some extent, they could be executed, and, when performed, excited nothing similar on the other side. If a movement were made energetically on the left side—if, for instance, the left forefinger were bent towards the wrist—it was repeated in the right hand, and could not be prevented in spite of all the patient's wishes. If the right hand were rolled up into a "fist," the left remained quiet, but if the fingers of the right hand were moved alone, then the left fingers, especially the thumb and index, echoed the movement. Closure of the right hand caused only the slightest movement of the left index finger.

Dorso-plantar flexion of the left foot produced an exactly corresponding action in the right foot, though nothing ensued on the reverse movement. The prick of a needle in the left hand only excited movements in the right hand. No opportunity for *post-mortem* verification of Westphal's theory has as yet been offered, but M. Bernhardt agrees with him in the interpretation of the facts.—*London Med. Record*, Oct. 16, 1874.

Reflex movements of the Sound Hand caused by Slight Irritation of the Skin of the Paralyzed Hand.

Dr. Putnam reported briefly to the Boston Society of Medical Sciences (*New York Med. Journal*, Nov. 1874), the case of a boy, a patient at the Massachusetts General Hospital, suffering from disease of the aortic valve, who had recently been attacked suddenly with incomplete paralysis of the left side, presumably from embolism, from which he had recovered so as to move his leg freely in bed, though the arm was helpless.

The interesting point in the case was that slight irritation of the skin of the paralyzed hand, such as that made by drawing the point of a pencil lightly across it, caused reflex contractions of the muscles of the opposite hand and arm, causing mainly light flexion of the fingers, hand, and arm at elbow.

In several series of trials these reflex contractions followed the irritations at regular intervals: thus, in the first series, after 12, 11, 17, 16 seconds; in the second, after 4, 6, 4, 12, 12, 14, 30; in the third, after 22, 21, 28, 30. Towards the end of each series of trials, and toward the end of the experiment, the intervals between the irritation and the contractions became longer.

The paralyzed arm and hand did not move except once or twice very slightly, and when it did so the intervals before the movements of the opposite hand occurred were generally longer than usual (v. 2 series, fourth and seventh trials: slight movements of left arm occurred at 4 seconds and 12 seconds, respectively).

It was suggested that the phenomena were due to removal by disease of the inhibitory influence of the right side of the brain over the right side of the spinal cord, although no exact conception could be formed of the conditions which had caused it.

—

On the Curative Treatment of Insanity by Chlorohydrate of Morphia.

Dr. Voisin, of the Salpêtrière Hospital (*Bulletin Général de Thérapeutique*, March, 1874), arrives at the following conclusions.

If the malady be recent and not complicated by successions of delusions, the remedy keeps it from progressing, and stops the development of secondary or tertiary stages. Moreover, it calms the general or partial agitation in a time varying from two to three hours after a sufficient quantity has been injected. This dose is very variable, and is only arrived at by experience. The manner in which the delirium disappears is interesting. The delusions, hallucinations, etc., seem to separate off from one another, and no longer to form part of the same whole; they disappear one after another, and the patient replies to questions, and recognizes that he has been ill, his memory returns, and he recounts a series of facts relating to his entry to the hospital, he writes to his family, and allows himself to be treated medically without offering any resistance. It seems as if the symptoms of insanity disappear inversely in the order of their occurrence. Thus the patients who have begun by hallucinations followed up by delusions, in their recovery lose the latter before the former, and though the hallucinations may remain for some days they do not believe in them. The indications for the remedy are: melancholia, with or without hallucination; ecstasy; suicidal ideas; religious delusions; maniacal excitement; the various forms of neuralgia, which are so common amongst the insane, and especially in the women, which often determine the special character of the delusions, giving, *e.g.*, the notion that they are being electrified. The peculiar form of *folie circulaire*, which is generally thought to be incurable, has been very successfully treated by it.

The contra-indications for its use are: inflammatory symptoms, epileptic insanity, and general paralysis. In that form resulting from atheroma of the arteries, it may cause mischief from congestion, leading thence to hemorrhage.

Of the twenty-five cases quoted which were cured, six were affected with general mania, with hallucinations, and incoherence. The strongest dose employed in these six cases was twenty-one centigrammes daily, and the smallest

was thirty-one milligrammes daily, the average duration of the treatment being four months. The other successful cases were of melancholic form, with more or less suicidal and homicidal complication.

Of the five unsuccessful cases, four had delusions of wealth and power, and one had certain febrile complications, a condition which has been shown by later experience to be totally opposed to the proper use of the remedy.

The subject will be continued in another number.—*London Med. Record*, Sept. 4, 1874.

—

On Syphilitic Meningitis and Syphilitic Cerebral Disease.

In making this valuable contribution to the pathology of syphilis of the nervous tissues, Dr. Bruberger (Virchow's *Archiv*, May 6, 1874) narrates with extreme minuteness the clinical history and *post-mortem* examination of a patient who contracted syphilis in 1871, had destructive ulceration of the soft palate two years later, and sudden complete motor paralysis of the arms and legs occurring while under excitement partly alcoholic, partly of another kind. The paralysis was so complete that the patient was unable to move a finger or toe, or make the slightest effort to change his position in bed. Meanwhile, the cutaneous sensibility of the body and limbs was ascertained by many careful experiments to be only very slightly diminished, and the susceptibility of the muscles to electrical stimulus was as keen as in health. The muscles of the face and of respiration were not paralyzed, nor was control of the sphincters wholly lost. Consciousness was lost only for a few moments, and having returned, remained unimpaired to the last. The intellect was also intact. Iodide of potassium, in large doses, was administered for four weeks, and then changed for mercurial inunction. Six weeks after admission the patient regained the power of slowly clenching the fist and opening the hand again, but no other improvement ensued. After lingering nearly four months, he sank exhausted by bed-sores and vesical irritation. In making the diagnosis, no hypothesis explained all the symptoms. The bilateral symmetry of the motor palsy and the unimpaired sensorium suggested the cord to be the part attacked. The suddenness of onset indicated extensive hemorrhage or plugging of a large artery, were it not that in syphilis paralysis does occur suddenly without either of these conditions being found after death. Again, a thrombosis or hemorrhage would have almost certainly produced some hemiplegia. Local softening or the presence of a gumma in the medullary tissue was, like hemorrhage, precluded by the undiminished intellectual power. Lastly, disease of the meninges at the base, a frequent form of cranial syphilis, was rendered improbable by the absence of peripheral irritation of all kinds; neither convulsions nor slowness of pulse, nor sinking in of the abdomen, etc. were present. But the *post-mortem* examination revealed most unexpected conditions, the principal being inflammatory thickening of the dura and pia mater in the cervical portion of the spinal cord and base of the brain, producing a leathery sheath which had formed numerous attachments to the medulla and to the bony surfaces. There were also hemorrhages into the spinal cord, with atrophy of the gray substance and considerable widening of the central canal. In the skull, inflammation had spread widely through the meninges over the basilar bone, and had changed the pia mater at the base of the brain into a thick gray glue-like mass. Another striking alteration was a peculiar change in the vessels of the skull, causing thickening of their walls and a nodular condition of their calibre; the arteries throughout the rest of the body being free from perceptible change. The remaining phenomena had nothing specially syphilitic. The author then recapitulates the points of interest in the case, and has collected the published records of syphilitic disease in arteries, which consist mainly of the observations of Hughlings Jackson, Moxon, and Clifford Allbutt, and of one or two others. These observations show that ordinary atheroma, if at all a syphilitic product, is not the usual arterial affection, which consists of irregular thickening of the coats, especially of the middle tunic of the vessel, producing nodular projections with narrowing and some loss of elasticity of the vessel, but no fatty or calcareous degeneration of its walls: further, that this

inflammatory change of the arteries is very local, attacking the vessels of one or two regions, and not spreading through the arterial system generally. After remarking that the extensive disease of the meninges caused no convulsive affection of any kind, again a peculiarity of syphilitic meningeal disease, the author notes, without offering an explanation, the curious fact that sensation was intact throughout the body, and yet the gray matter of the cord was far advanced in atrophy, while the white fibres were so tightly strangled at one point of the medulla as to produce almost total loss of voluntary muscular power.—*London Med. Record*, July 8, 1874.

—

On Ipecacuanha Spray in Winter Cough and Bronchitic Asthma.

Dr. Sydney Ringer and Mr. William Murrell in a communication to the *Lancet* (Sept. 5, 1874) state that "the successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

"We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely chose severe cases."

In winter cough "our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out-patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but, if it continues, a weaker solution should be used. The patient soon becomes accustomed to it, and inhales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and consequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

"The dyspnœa is the first symptom relieved. The night after the first application the paroxysmal dyspnœa was often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvement taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold. We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundred yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, this comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes. The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much

more readily, and thus the cough becomes easier, even before the expectoration diminishes.

"Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with only one pillow. This improvement occurs in spite of fogs, damp, or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room."

"All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9.4, and the average number of days was twelve, before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest under treatment required twenty-four days; the shortest, four.

"In employing the ipecacuanha spray, in order to insure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, sometimes enough is swallowed to excite nausea, and even vomiting, by which means the bronchial mucus is mechanically displaced, and, of course, in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucous membrane; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes, especially on the commencement of the treatment, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers, and to breathe deeply. The inhalation should be used at first daily, and, in bad cases, twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed."

—

On the Use of Carbolic Acid in Cheesy Pneumonia.

Professor Tommasi states (*Il Morgagni*, January, 1874, quoted in *Gazzetta delle Cliniche*, May 19) that he has found carbolic acid very useful in cases of cheesy pneumonia which have gone on to the formation of pulmonary abscess. The medicine is administered in the form of solution (one part in forty of water, sweetened). In two years he has met with six cases, of which he relates two.

The first case was that of a boy, aged six, who had hectic, sweats, extreme emaciation, and moderate expectoration of sanguineous fetid pus. Cinchona, lactate of iron, cod-liver oil, and raw meat produced but little improvement. He now had half a gramme of the carbolic acid solution daily, the dose being increased to a gramme. At the end of a fortnight the fever ceased, the expectoration diminished and became inodorous, and in four months he was quite restored to health.

In the second case, there was abundant expectoration of inodorous pus. The usual restorative means failed; but, after the solution of carbolic acid had been given in daily doses of a gramme to a gramme and a half, the expectora-

tion diminished, and the patient became free from hectic and regained his appetite, and his nutrition was improved. In two months the expectoration had ceased, and a respiratory murmur, though weak, could be heard in the portion of lung which had been hepatized.—*London Med. Record*, Sept. 2, 1874.

—

On the Symptoms of Tuberculization in Children, and their Semeiological Value.

Dr. J. Grangé (*Thèse de Paris*, abstracted in *Revue des Sciences Médicales*, 1874) has sought to define more clearly than has yet been done, the exact physiognomy of tuberculous children; as well as the importance of the various symptoms presented in them. Unfortunately tuberculosis shows itself under so many forms, is so common during infancy, and develops itself in so different a manner, according to the parts most directly attacked, that it is difficult to give a connected account of symptoms which differ widely. After describing the signs afforded by examination of the thorax, the respiratory movements, and the dyspnœa, Dr. Grangé proceeds to study the fever of tuberculosis. He points out the marked variations of the thermal curve, according as the inflammatory phenomena advance more or less rapidly; but whatever may be the character of the phthisis, it is thermometrically distinguished by the amplitude of its daily oscillations, and the great difference between the morning and evening temperatures. On the contrary, tuberculization of the peritoneum causes but a slight increase of temperature; indeed, when it is unattended by complications of an inflammatory nature, the temperature is lowered. In meningeal tuberculosis the temperature is very low at the stage when the phenomena of cerebral depression become manifest. The thermometer may indicate important differential signs in cases where the presence of typhoid fever might be supposed. Dr. Grangé then proceeds to study carefully the symptoms of pain, vomiting, and disturbance of the cutaneous and secretory functions; but as these symptoms differ but slightly from the corresponding disorders from which adult phthisical patients suffer, and as their very diversity is unfavourable for generalization, there is nothing striking or original in this section of his researches. This treatise contains a useful series of tracings of thermic waves taken from tuberculous children, and a considerable number of notes of cases; among which some, taken with great care, relate to cases of cerebral tuberculosis and tuberculous meningitis.—*Lond. Med. Record*, Oct. 4, 1874.

—

On Acute Phlegmonous Periostitis with Ulcerative Endocarditis.

M. Hirtz, in the *Progrès Médicale*, p. 413, reports a case occurring in a girl eight years old. Up to five years previously she had never had any ailments, when she was suddenly seized with pain in the left thigh; an abscess formed which was opened and healed in a fortnight. Four days previously to her entry into the hospital the child was suddenly attacked with violent headache. She became delirious the same night, and continued so. At the same time the left thigh began to swell and be painful. On admission, the patient was very restless; she lay on her back with her eyes fixed, and had sudden attacks of terror. The chest-sounds were normal, the heart-beats very rapid. The left thigh was swollen and painful to the touch. M. de Saint-Germain diagnosed phlegmonous periostitis. He thereupon made a deep incision, from which blood and a little pus escaped. The child sank on the fourth day after admission. The necropsy showed the periosteum thickened and separated for the whole of the lower third of the femur. The surface of the bone was rough, covered with osseous stalactites, and a thin layer of pus. A section displayed islets of osteomyelitis. The meninges of the brain were congested. In the left lung, at its base, was a small infarctus. The right side of the heart was sound. Just below the aortic valves were three small ash-gray ulcerations, surrounded by a red zone.—*London Medical Record*, Oct. 7, 1874.

On Hepatic Syphilis in the Adult.

Hepatic syphilis, as M. Lacombe observes (*Progrès Médical*), is at once an old and a new question. It is old in fact, for the medical men who came after the Renaissance attributed to the liver, which played a prominent part in the vital functions, the seat of a disease which exercised so serious an influence over the animal economy; and yet new, since really scientific researches on syphilis only date from about twenty-five years since. Dittrich's first memoir only appeared in 1849, and subsequent researches but serve to consolidate and complete the work of the physician of Prague. A considerable number of medical men, however, in France and other countries, have added their stone to the general edifice. Gubler in 1852, Quetelet in 1856, Lecontour and Virchow in 1858, Leudet in 1860, Lancereaux, Cornil, and Ranvier, have brought to light all the variety and capriciousness belonging to the clinical and anatomo-pathological manifestations of this disease. In the anatomical portion of his work, M. Lacombe recognizes and describes two principal forms in lesions of the liver, interstitial hepatitis, and gummatous hepatitis, of which he gives the histological description in detail, from the works of MM. Lancereaux, Cornil, Ranvier, and Hayem, afterwards going into an interesting discussion on the unity or duality of the sympathetic lesions of the liver. We know, in fact, that the generality of writers consider interstitial hepatitis and gummatous hepatitis to be of totally different orders; the first they hold to be of a purely inflammatory nature, whilst the second alone is markedly a specific disease. M. Lacombe is of a different opinion, and believes that the anatomical nature of the lesions is identical, all the difference between them arising from the fact that they do not attain to the same degree of evolution. The question is, at what stage of syphilis hepatic lesions appear. It is difficult to solve this question in a general way, for syphilis of the liver is often latent, sometimes is only found out on necropsy, and may last a long time without betraying its existence; whence the difficulty. It does not appear possible to say whether, as some writers think, the diffuse lesions are always primary, and the circumscribed lesions, the gummata, are always consecutive.

In a second and clinical portion of his work, M. Lacombe traces the symptomatological history of hepatic syphilis, and includes a number of unreported cases collected by him in the hospitals, or given to him by his colleagues, MM. Rendu, Troisier, Homolle, Raymond, etc. A certain number of these cases gain special value from microscopic examination, generally made by M. Hayem, who even describes a lesion not pointed out before he did so, and which he calls perilymphangitis; the meaning of this term being that the lymphatics have increased in number, and that many of them are dilated and surrounded, as it were, with a ring of connective tissue. The concluding chapters of this valuable monagraph relate to the icterus of secondary eruptions. They inquire into the nature of that icterus to which M. Gubler specially drew the attention of the profession in 1853; whether they depend on syphilis, and by what mechanism they are produced. The influence of syphilis on the development of icterus is scarcely to be contested at the present day, for observation has sufficiently proved that that icterus is etiologically connected with syphilitic manifestations. The author passes in review all the opinions hitherto enumerated concerning the mechanism by which it is produced, and takes his stand on that which pronounces that the icterus which is coincident with premature syphilitic eruptions is a simple catarrhal icterus, only differing by its cause from the more ordinary catarrhal icterus.—*London Med. Record*, Oct. 21, 1874.

Pseudo-Membranous Enteritis.

M. Wannebroucq (*Le Progrès Médical*) read a paper at the recent meeting of the *Association Française pour l'avancement des Sciences*, on this form of enteritis, which, he said, merited a special description. Up to the present time it had been but little studied by authors, who seemed to regard it as of less frequent occurrence than it really was. It had also received the name of croupous ente-

ritis, and ought to be connected with what was termed sporadic dysentery. The peculiar character of the disease consists in the expulsion of false membranes, at first small and short, but which soon become thick, and extend to a length of from 15 to 30 centimetres (6 to 12 inches), and in exceptional cases even to a length of a metre (1 yard $\frac{1}{10}$), and even a metre and a quarter, as in a case observed by the author. Their form is variable, resembling sometimes the segments of tænia, while at other times they are tubular, or present the appearance of frog's spawn. The disease is ushered in, in the acute form, with very analogous symptoms to those of enteric fever (but neither rose nor slate-coloured spots have been ever observed), and there is a remarkable tendency to pass into a chronic state. The expulsion of false membranes often lasts for months, or even years, without occasioning serious derangement of the general health. The anatomical lesions do not differ from those of chronic enteritis. The small intestine is never engaged, but always the large intestine, either the cæcum or colon, or the rectum; in the latter case the symptomatology is that of dysentery. Another point worthy of attracting the attention of the observer, is the frequent, almost constant, coincidence of nervous affections in the subjects of this form of enteritis. These affections present themselves in the female under the form of hysteria, in all its varied aspects, and in males chiefly in different kinds of hyperæsthesia, and in hypochondriasis. From these circumstances M. Siredey regards pseudo-membranous enteritis as a neurosis with disorder of the secreting system. Would it not be more correct to consider these nervous derangements as secondary and subservient to the influences of the visceral derangements?—*Irish Hospital Gazette*, Oct. 1, 1874.

Surgery.

On the Treatment of Wounds.

Dr. G. M. Humphry, at the recent meeting of the British Medical Association, presented (*British Medical Journal*, Sept. 19, 1874) a paper upon this subject. Cut surfaces, he said, seldom fail to adhere together and grow together—that is, to unite by first intention—if they be kept in apposition, however much they may have been exposed to air, as in wounds of the face, scalp, and fingers, where this may commonly be done. This, therefore, is the great desideratum. The obstacle to it is the accumulation of bloody fluid in the wound keeping the surfaces apart, decomposing, and causing suppuration. No precautions hitherto have assured against this. Anything giving that assurance would be a most valuable discovery. The decomposition may be lessened sometimes, though not commonly prevented, by antiseptics, but fail to provide for escape by drainage. Professor Humphry had long adopted the plan, which he had brought before the Association at the Cambridge meeting in 1864, of approximating the edges by sutures, and leaving the wound quite uncovered and dry. No dressing being used, the pain of removing and reapplying plasters, etc. is avoided. This, combined with some antiseptic or blood-coagulator to the surface of the wound, and a space left for escape of bloody fluid, was, he believed, the mode most likely, on the whole, to promote quick union of large deep wounds. He did not think that torsion of vessels or carbolized ligatures presented much advantage over the hemp ligature. A splint was an adjunct that might well be oftener used. He had tried the hydrate of chloral (five to eight grains to the ounce of water), and found it a valuable disinfectant, and recommended others to try it. In the case of wounds for the removal of cancer, he had for many years encouraged suppuration, and tried to retard healing, believing that this tended to delay the return of the disease. In some cases, he had inserted issues at the time of the operation or subsequently, and he thought with benefit. He believed the administration of opiates to be generally prejudicial in the treatment of wounds.

On Herpes Corneæ.

Dr. Pfluger, of Luzern, relates a case of herpes corneæ, in Zehender's *Klinische Monatsblätter für Augenheilkunde* for April and May, depending upon excessive use of the eyes by artificial light. After trying the usual modes of treatment by atropia, rest, iodide of iron, quinia, arsenic, etc., without effecting any change, he applied a constant current, placing the anode on the closed lid, directly over the cornea, and the cathode on the neck. Under this treatment, applied daily for from five to ten minutes, only one new crop of three vesicles appeared, while formerly there had been a new daily crop of from eight to twelve.—*Lond. Med. Record*, Sept. 2, 1874.

—

On Serous Cysts of the Iris.

In Zehender's *Klinische Monatsblätter für Augenheilkunde* for April and May, Dr. Hosch, of Basel, and Dr. Sattler, of Vienna, have papers on the serous cysts which occur in the iris. The theories given as to their origin are discussed, that of Von Wecker being that all such cysts have their origin from the folding in and attachment of such folds of the iris, either with or without a wound in the cornea; while Rothmund holds that they have their origin only by the carrying of corneal epithelial cells into the iris, after or during the infliction of a corneal wound, and that these cells increase in their new position, secrete, and so form a cyst within the iris-tissue itself. Dr. Hosch describes the microscopic anatomy of an eye, in which an iris-cyst had occurred after a wound, and which was removed on account of sympathetic ophthalmia of the other eye. The cyst was about five millimètres deep, lying in the tissue of the iris on the one side, while on the other side it was bounded by the ciliary body, sclera, conjunctiva, and cornea. He thinks there had been a division in the iris-tissue arising from a wound at the corneo-scleral junction, which, after the consequent collapse of the anterior and posterior chambers, and the soldering of the anterior and posterior surfaces of the iris to the neighbouring tissues, had been, on the closure of the anterior wound, filled by the reaccumulation of the aqueous humour, and so formed the cyst. He considers that the case goes to support Von Wecker's theory as to the origin of such cysts.

Dr. Sattler had the opportunity of making microscopic examinations of three such cysts, and found that in all three the wall was composed of fibrous tissue, with a lining of large flat cells, consisting of several layers. In these cases, he believes he established the following facts: 1. The preceding of, and in itself a trifling wound; 2. The presence of a cicatrix at the corneo-scleral boundary; 3. The commencement of the cystic formation long after the wound; and 4. The after-appearance of irritable conditions by the increase of the cyst, and the clothing of its inner surface by a variably thick layer of flat cells. He thinks that the elements of these epithelial layers not only increase by division of the epithelial cells present, but receive additions from the cells in the stroma. In one case he found what he calls an anatomical peculiarity, capillaries in the walls of the cyst. Dr. Sattler is not fully satisfied with any already proposed theory of origin.—*Lond. Med. Record*, Sept. 30, 1874.

—

On Pulsation of the Retinal Arteries in Aortic Disease.

The appearance of pulsation within the retinal veins is well known, but when met with in the arteries it is generally accepted as an indication of disease. Most observers agree with Von Graefe in the belief that its occurrence implies an increase in the intraocular tension. Dr. Grandclement considers this explanation to be by no means complete, inasmuch as the phenomenon has lately been associated with aortic disease. The first observation to this effect was that of Quincke (1868); and independently, an observation of a similar case was communicated (1871) to the Ophthalmological Congress at Heidelberg, by Otto Becker; and in an article entitled "The Movement of the Blood Visible in the Human Retina," and published in the Berlin Archives

(1872), Becker has recorded seventeen cases of its occurrence with heart disease. In cases of aortic insufficiency, with or without hypertrophy of the left ventricle, Becker has observed pulsations in the arteries of the optic disk; and in a case of supposed aortic disease in which the pulsation could not be detected, the subsequent necropsy revealed an aneurism of the ascending aorta, with no disease of the aortic valves; on the other hand, the occurrence of pulsation enabled Becker to correct a diagnosis of aneurism where there was in fact disease of the aortic valves.

Dr. Grandclement (*Lyon Médical*, June 7, 1874) has been able to verify these observations of Becker, in the case of a young woman aged twenty-seven, who was in the last stage of heart disease; the heart's action was feeble and irregular, and its two sounds were almost obscured by a loud double murmur, which was prologed into the carotids. The phenomena of pulsation were very evident in both the branches of the central artery of the retina; it should be said, however, that the appearances were rather those of alternate filling and emptying than those of true pulsation, for during the heart's diastole these vessels were reduced to mere threads, and during the systole they regained their usual size and colour. No other intra-ocular lesion could be detected, and, except of an occasional passing dimness of vision, no complaint was made.

The occurrence of a visible arterial pulsation within the eye when in perfect health, has been noted in some instances by Donders. The observations of Helmholtz do not support the fact of its occurrence, and some experiments made by Becker upon the mesentery of frogs would seem to contraindicate it. In these experiments the action of the heart was seen to produce an acceleration in the movement of the blood, but not an actual pulsation of the bloodvessels; only when a vessel divided into others of lesser calibre could any pulsation be detected, and, in consequence, Becker asserts that when arterial pulsation is observed in the healthy eye, it is either transmitted from the adjacent veins, or it occurs at the bifurcation of the arterial trunks. He gives, however, no explanation of its occurrence with heart disease, which Dr. Grandclement thinks can be explained as follows. He supposes that in a state of health the intra-vascular tension and the intra-ocular tension are so evenly balanced that no pulsation or alteration in the size of the arteries can be detected; when, however, the harmony between these is disturbed, either by the increase in the one, or by the depression of the other, the phenomena of pulse are at once apparent. Thus when the intra-ocular tension is increased, as in glaucoma, the calibre of the arteries during the heart's diastole is considerably reduced, and during the systole is again restored; by reversing the order of things, and supposing the intra-ocular tension to be normal, and the intra-vascular tension to be depressed, as in the later stages of aortic disease, the same appearance of pulsation would be noticed.

The explanation, then, of the pulsation of the retinal vessels in glaucoma and in cardiac disease, consists in the want of harmony between the intra-ocular tension and the intra-vascular tension in the arteries upon the optic disk. In the same way Dr. Grandclement explains that a retinal pulse should occur in cases of rapid and abundant hemorrhage.—*Lond. Med. Record*, Aug. 26, 1874.

—

On a New Method of Operation for Entropion and Trichiasis of the Upper Eyelid.

The *Annales d'Oculistique* for May and June, 1874, contains an account of a new operation for the cure of these troublesome and distressing cases, and one which Dr. Warlomont has practised with great advantage. After passing in review the methods recommended by Anagnostakis, by Von Graefe, by Williams, and by Streatfeild, all of which are good in their way, but each and all leaving something to be desired, Dr. Warlomont describes and recommends his own plan of proceeding as presenting the following advantages:—

1. The operation may be as extensive as the surgeon pleases.
2. A recurrence of the inversion is rendered impossible.

3. The skin of the eyelid is unhurt, and the subsequent scar is almost imperceptible.

The operation consists in detaching the margin of the eyelid, with the offending eyelashes, from the subjacent tissues, and fixing it by sutures to the upper border of the tarsal cartilage, previously laid bare by a careful dissection. It is carried out as follows:—

The patient is placed under chloroform, and the upper eyelid is fixed and compressed by a modified form of ring-forceps, which will be subsequently described. An incision is then made through the skin only, parallel to and at a short distance from the ciliary margin; the skin is then dissected from the orbicularis muscle as far upwards as the ring of the forceps, so that a semilunar flap is formed of integument alone. The margin of the eyelid is then transfixed from above by a narrow double-edged knife, which detaches the row of eyelashes, or so much of it as is required, in such a way as to split the margin of the eyelid into halves, except at the extremities of the section. The narrow flap of integument containing the eyelashes is then drawn upwards, and is fastened by three or more sutures to the upper margin of the tarsal cartilage, which has been exposed by the previous dissection of the skin. The margin of the eyelid, bared of its eyelashes, is left to granulate over, and the flap of integument falls naturally into position, and requires no sutures. The threads are removed at the end of three or four days, when the union is generally found complete.

The ring-forceps which Dr. Warlomont employs is a modified variety of those generally in use. There is, as he says, a well-known objection to the ordinary form of instrument, in that its grasp upon the eyelid is limited, especially in breadth, so that it very often fails to include the entire row of eyelashes upon which the surgeon may wish to operate, and thus the operation is rendered incomplete. With the forceps which Dr. Warlomont has devised, this disadvantge is overcome in an ingenious manner; the upper blade or ring is made to expand laterally, by means of a screw, and may thus be adapted to any length of the eyelid that may be desired; at the same time, and by a similar arrangement, the under and solid blade can be made to expand like a fan. The instrument was originally described by Dr. Warlomont in the *Klinische Monatsblätter*, December, 1873, having been previously mentioned at the Heidelberg Congress. It is now fully described, with an illustration, in the May and June number of the *Annales*, and with some improvements.

The instrument has been called the "fan-shaped eyelid forceps," by Dr. Warlomont.—*London Med. Record*, Sept. 2, 1874.

Removal of Plaster of Paris from the External Auditory Canal.

Mr. Dalby related at a recent meeting of the Clinical Society of London (*British Med. Journal*, Oct. 17, 1874), the method he had employed to extract some plaster of Paris which had become moulded and hardened in the external auditory meatus. The accident had occurred to a gentleman while he was having a cast taken of his head, and the plaster at that time had found its way into the meatus, and rapidly hardened. It partially filled the passage, was in close contact with the tympanitic membrane, and caused complete deafness and considerable tinnitus. The following was the plan adopted. Whilst light was thrown through the speculum worn on the forehead, strong hydrochloric acid was applied on the end of a pointed piece of wood, drop by drop, to the centre of the mass, care being taken not to allow any of the acid to touch the meatus. Several drops of the acid were thus applied on four occasions, and the concrete became so far softened that a small hole could be drilled into it with a cataract needle, and pieces were from time to time picked out with a little hook, which was in common use among dentists. The great mass of the plaster, however, was softened by the application of acetate of lead, the action of which was to convert the sulphate of lime into sulphate of lead and acetate of lime. The latter salt being very deliquescent, the consistence of the plaster was so altered that the whole of it was finally piecemeal removed with the hook referred to.

Throughout the proceedings, which occupied eight sittings of about half an hour each, reflected daylight was employed. The tympanic membrane was found uninjured, and the hearing unimpaired.

—

On Salivary Fistula.

In a recent number of the *Gazette des Hôpitaux* (p. 814) is the account of a patient who was exhibited to the Académie de Médecine after the cure of a salivary fistula. He was a boy aged twelve, who fell in running down a staircase with a chamber-pot in his hand. His cheek was cut, and three fistulous openings formed—one corresponding to the situation of Steno's duct, which showed no tendency to heal, the two others situated over the gland itself closed spontaneously. An artificial canal was formed through the cheek, by means of a trocar, and kept dilated with tents and bougies. When this canal had been completely established, the wound was closed by twisted suture. The cure at the time of exhibition (more than three months after the accident) seemed complete. During the presence of the fistula, Dr. Prompt, his medical attendant, made several observations on the boy which led him to the following conclusions.

1. The discharge of parotid saliva depends on the excitation of the sense of taste, and is pretty nearly the same whatever be the form of that excitation, whether the person eats or drinks, or a sapid substance is applied to the tongue.

2. The quantity of the liquid secreted depends chiefly on the time during which the excitation of the sense of taste lasts; thus, if a glass of wine is swallowed at once, only a few drops will be secreted; if it be drunk in small mouthfuls, so as to spend three or four minutes over it, a considerable quantity, as much as two or three grammes, will be obtained.—*London Med. Record*, Oct. 7, 1874.

—

On Gastrotomy for Internal Strangulation.

Professor Berti, of the Leghorn Hospital, in the memoir of which an abstract is given in *Lo Sperimentale* for July, describes the case of a man, aged about sixty, the subject of an old right inguinal hernia, which he had always kept up by means of a truss. During a violent effort, he suddenly felt pain in the groin which was the seat of the hernia; and intestinal obstruction, with distension of the abdomen, hiccough, and vomiting of food (but not of fecal matter) set in. From a careful examination of the case, Dr. Berti arrived at the conclusion that the obstruction was caused by a constricting band acting on a part of the bowel not very near the stomach. He accordingly made an incision about four inches long, and laid open the inguinal canal. Here he found a hard mass of omentum, from which proceeded a cord, passing into the abdomen by the internal ring, which guided him to the constricting band. The finger being introduced, this band was divided by means of a knife, and the intestine was set free. The cord was then drawn out and cut off. It was a little time before the bowels recovered their power of acting, and an oleaginous purgative was required, but the patient was quite well in less than a month.—*London Med. Record*, Aug. 26, 1874.

—

Case of Perityphlitis; Operation on the Eighth Day; Recovery.

Dr. Charles Kelsey, of New York, reports (*Medical Record*, Oct. 1, 1874) the following case.

L. C., age 16, French, previously in excellent health, was taken on the eve of April 8, 1874, with pain over abdomen and vomiting, lasting all night. Next morning, after an enema, had three good passages from bowels, the vomiting ceased, and pain became localized over right iliac fossa.

April 10. Pain increasing in fossa; great tenderness on pressure; sleeplessness; some fever. A dose of castor oil given by parents was followed by one passage from bowels, in fair quantity.

11*th*. No improvement in pain. Physician sent for.

At first examination near the end of the third day of trouble, the patient was found, temperature 101.5, pulse 120, and a hard, painful tumour in right iliac fossa. There was dulness reaching half way from ant. sup. spine to umbilicus, and for about an inch and a half of this distance flatness on percussion. There seemed to be also a slightly greater fulness on the surface over this fossa than on the other side, but no redness or fluctuation.

Persistent questioning failed to reveal that patient had eaten anything liable to become fixed in appendix.

Ordered Sol. Magendie, q. s., to relieve pain.

12*th*. Condition unchanged.

13*th*. Small, voluntary mucus passage from bowels.

14*th*. Pain, tenderness, and swelling in fossa continue undiminished, slight increase in area of dulness. Pulse ranges from day to day at about 110, and temperature about 101.5. These are the only symptoms—no vomiting, no chills, no pressure affects firm tumour.

16*th*. (Morning of eighth day.) Case seen by Dr. George A. Peters in consultation. At this time the border of tumour, as well as could be felt by deep pressure on abdomen, extended about half way between ant. sup. spine and umbilicus; but for some distance further there was dulness and tenderness. Temperature 101, pulse 110. The tumour had not increased in superficial area for forty-eight hours, and there was no redness or fluctuation.

The diagnosis was confirmed by Dr. Peters, and with his approval and assistance, and that of Dr. Abbe, the operation was performed.

The incision was four and a quarter inches long, beginning at a point one inch above ant. sup. spine, and running parallel with, and an inch above, Poupart's ligament. After cutting through the external oblique, the smallest needle of aspirator was plunged into the tumour, and a few drachms of pus drawn out. The incision was then carried on to transversalis fascia, and a large-sized aspirator needle again used, through which there was an escape of foul gas and pus, without it being necessary to attach the instrument.

Leaving this second needle in as a guide, an incision an inch long was made through the fascia, and two or three ounces of pus escaped.

The cavity of the abscess was carefully explored with the little finger, and the convoluted intestines could easily be felt, apparently covered by the parietal layer of peritoneum separated from the fascia by the collection of pus. But this could not be decided positively; nor could it be found with certainty whether there had been perforation of the appendix or colon, though it was thought by two of us that there was a marked fecal odour about the pus and wound immediately after the abscess was opened.

Wound kept open with lint, and poulticed.

Next day the temperature was normal. Pulse 98; pain greatly relieved; wound discharging well; patient much improved every way.

22*d*. One large passage from bowels, assisted by enema.

After this the bowels moved easily and readily every day or two, and by May 8, one month after the beginning of trouble, the wound was almost entirely healed, the patient up and about, and apparently entirely cured.

On Hypospadias.

In the *Journal de Thérapeutique* we find an interesting account of a communication made by Dr. S. Duplay to the sitting of the Société de Chirurgie, on January 28, "on the treatment of scrotal and perineal hypospadias." M. Duplay had treated three patients affected with this deformity. Their ages were four, four and a half, and twenty-one. In all, the penis was tightly tied down to the scrotum by a bridle, continuous with the borders of a gutter on the lower aspect of the glans, which is the rudiment of an urethra. The first step in the surgical treatment of the disease is to divide this bridle, and bring the penis up to the belly. The fibrous envelope of the penis is to be freely dissected from the skin of the scrotum, the organ raised and maintained

against the abdomen during the whole time of cicatrization, and for long afterwards. In the case of the young man of twenty-one, two months after the completion of this process sexual intercourse, which was previously impossible, could take place.

A new canal must then be created. This Dr. Duplay only tried on the two older patients; the child of four years having been withdrawn from his treatment. He insists on the necessity of effecting this by gradual processes; and especially on not attempting to unite the new canal to the orifice of the posterior part of the urethra for a considerable time. The meatus, however, may be formed at the same time that the penis is elevated. For this purpose, the borders of the groove are to be pared, and the tissues united over a sound which is left in. Then the new canal is to be formed by dissecting flaps from the under surface of the penis towards the median line, on each side, uniting them in the middle line (of course with their bleeding surface outwards), and then covering them with a flap of skin taken from the neighbouring part of the penis, and raised up sufficiently to glide over the former. This process did not succeed at once in either patient. In the young man, three operations were needed; in the child, four. In fact, it seems doubtful whether it should be done in childhood, children being apt to tear the wound open. The union of the new canal with the old had only been attempted in the man, and then not with complete success. However, only a slight fistula was left, and when he passed urine without raising the penis, the greater part escaped by the new meatus. Whether the semen also passed by the meatus is not specified.

[The result certainly seems better than any which has yet been obtained, and may encourage renewed attempts to cure this distressing malformation.]—*London Med. Record*, October 7, 1874.

—

On Obstruction of the Left Ejaculatory Duct by Concretions from the Vesicula Seminalis (Spermatic Colic).

M. Réliquet relates in the *Gazette des Hôpitaux*, September 3, 1874, the case of a hairdresser, aged thirty-five, married, pale, thin, delicate, and exhausted-looking, who consulted the author on March 12, 1874. For several years he had often suffered, when at stool, from the emission of a small quantity of thick white liquid. For two months he had experienced pain, extending from the anus to the perineum, on emissions during coitus or when emptying the bowels. The erect posture and walking provoked frequent micturition. Attempts to retain his urine caused acute pain and cold sweats. The pain lasted four or five minutes after urination. He lost desire to sleep. Venereal desires and erection provoked pain. During one month and a half he had passed small quantities of blood with his urine.

On March 12, a gum-elastic bougie (French, No. 20) was passed easily into the bladder, but caused excessive pain in the deep part of the urethra. He was sounded for stone the next day, but no foreign body was discovered in the bladder. On examination from the rectum, the left vesicula seminalis was found swollen, hard, and smooth. It was painful on pressure. After the sounding, an attempt was made to pass the bougie once more, but the instrument was arrested at the neck of the bulb, and then withdrawn. After two or three minutes of extremely sharp cutting pains in the penis and the anus, the patient stooped down, and, emptying the bladder, expelled as many as forty small opaque white bodies, about the size of a small pin's head or a lentil. They presented facettes and blunt angles, like prostatic calculi, but their consistence was soft, and they could be crushed between the fingers. To the naked eye, they appeared to be formed of a white homogeneous material devoid of any capsule.

After the passage of these bodies the symptoms quickly subsided, and, on examining from the rectum on the third day, the left seminal vesicle was found of the same size as the right.

On March 27, the man had returned to his usual occupation, and only had to pass urine twice in the night.

Professor Robin, who examined the concretions, sent M. Réliquet the following report: The concretions, opaline, transparent, had a diameter of from one to two millimètres. Their substance, under the microscope, was marked by very fine and very short rectilinear striæ, parallel, closely approximated to each other. Acetic acid caused the striated condition to disappear, and rendered the substance quite translucent, and homogeneous. At the same time it demonstrated numerous spermatozoids rolled together in the concretions formerly marked by the striæ. Where the striation was absent or scarcely marked on the concretions, which were of various forms, such as M. Robin has shown in the vesiculæ seminales of many healthy individuals (Charles Robin, *Leçons sur les Humeurs*, Paris, 1874, 2d edition, p. 443), these bodies had the aspect of normal ones. They had similar reactions to acetic acid, reactions which were not only those of mucus. Their volume was enormous, compared with that of the concretions in normal vesiculæ, and their consistence a little greater. But, they only represented normal corpuscles, which had accidentally attained gigantic proportions, and englobed the spermatozoids in the ordinary way.

Réliquet insists much on these facts in making the diagnosis: 1. That the first pain is produced suddenly at the time of coitus; 2. That subsequently every erection, or even every desire for coitus produces pain. They are, he says, the subjective symptoms. These combined with the objective signs, especially with the uniform swelling of the seminal vesicle, should lead to a correct diagnosis.—*London Med. Record*, September 30, 1874.

—

On Urethro-rectal Fistula following an Abscess of the Prostate.

M. Schwarz, interne in the Maison Municipale de Santé, reports (*Union Médicale*, July 2, 1874) the following case, which was under the care of M. Demarquay. The patient, a baker, twenty-two years old, was admitted January 6, 1874. Four months before he had gonorrhœa, and was treated by injections of acetate of lead and diuretic medicines. The discharge lasted fifteen days, and then ceased; the patient had difficulty in passing urine, then retention of urine. A catheter was introduced and retained; he was feverish, had much pain in the perineum, along the urethra, and in the penis. When the catheter was withdrawn, there was a discharge of pus from the meatus. He did not know whether at that time there was matter in his stools; but from that moment every time he passed urine part of it issued from the rectum. In the intervals of micturition no urine escaped *per anum*.

When admitted, he voided as much urine *per rectum* as *per urethram*. The diagnosis was, abscess in the prostate gland opening both into the urethra and rectum, a fistulous passage connecting the two openings. The day after admission an enema was administered, and he was examined with the American speculum. [The reporter is not quite certain what form of speculum is meant by the term "American," as there are several kinds of anal specula used in America; but probably Bozeman's was the one employed.—*Rep.*] There was seen, at the level of the anterior edge of the prostate, an elevation, or papule, in the centre of which was an orifice surrounded by small vegetations; into this orifice a stylet passed obliquely from below upwards, and from before backwards. On passing a metallic sound along the urethra, it could be felt by the probe in the sinus. An injection into the bladder did not pass into the rectum. After the examination, baths and emollient enemata were prescribed, a catheter was kept in the bladder, and the fistulous track was cauterized with tincture of iodine. It was found impossible to retain the catheter, in consequence of the suffering it caused. On the patient passing urine in the presence of the surgeon, it was found that about one-third of the urine issued from the anus; and, on introducing the speculum into the rectum, the urine could be seen trickling from the orifice in the little pimple already described. No benefit resulting from the treatment, the sinus was cauterized with nitrate of silver four times, at intervals of seven, four, and six days. Improvement followed this, less urine passing by the anus; but this amelioration of the symptoms did not continue, and a fortnight later the whole fistulous track was cauterized by

means of a platinum-probe reddened by the galvanic battery. Two strong cauterizations were employed. The patient did not suffer any pain from the operation. A catheter was again introduced; but it could not be kept in. At first the urine passed in much less quantity *per anum;* but when the slough caused by the cautery separated, it again flowed very freely. This only continued for a short time, and gradually the discharge of urine from the rectum diminished, until, thirty-three days after the operation, only about one-eighth of the whole quantity of urine was passed abnormally. Nitrate of silver was re-applied through the speculum to the spot whence pus could be seen to ooze. The result was good; and in a fortnight nearly all the urine passed through the urethra. Three months after, the patient left the hospital; he continued quite well.

M. Shwartz makes the following observations on the case:—

Recto-urethral fistulæ are rare, and they arise from divers causes. Among the most frequent may be mentioned abscess of the prostate; more rarely they may result from abscess of Cowper's glands. These abscesses, the consequence most frequently of blennorrhagia, open into the urethra and into the rectum. The sinus, unceasingly irritated by the foreign matters which pass into it, does not close, and in this manner the fistula arises. This accident, says M. Demarquay, most often follows those cases of gonorrhœa which are treated too heroically at their onset with balsams and injections. In these fistulæ, all the varieties that occur in ordinary perineal fistula may be found; the sinus may be more or less oblique, more or less sinuous, and from the principal sinus other secondary tracks may diverge. The seat is most frequently, as shown by the etiology, the region of the prostate gland; and next, the membranous part of the urethra.

An interesting point in this patient was, that when he had a seminal emission, the fluid all passed by the urethra, and none by the anus; this clearly showed that the urethral fistulous orifice was situated between the openings of the ejaculatory canals and the neck of the bladder.

The diagnosis of urethro-rectal fistula is made from the urine escaping from the anus at the moment of micturition *only*. In the case of vesico-rectal fistula, the flow, so to speak, is continuous. The prognosis, as regards cure, is always unfavourable; because, though the surgeon may frequently succeed in diminishing the calibre of the sinus, he very rarely succeeds in obliterating it completely. Under any circumstances, and whatever treatment may be adopted, the fistula fills up and heals, but very slowly. Among the most important methods of treatment may be mentioned, cauterizations with the hot iron, divers caustics, injections, tincture of iodine, and, in some cases, section of the track.—*London Med. Record*, Aug. 12.

—

On Tuberculosis Ulceration of the Anus and of the left Buttock in a patient suffering from Pulmonary Phthisis and Tuberculous Ulceration of the Fauces.

M. Martineau exhibited to the Société Médicale des Hôpitaux (*L'Union Médicale*, July, 1874) a model representing a tuberculous ulceration of the left half of the anus and the corresponding buttock.

The patient stated that the ulcer had been preceded early last April by an itching pimple; soon numerous pimples developed, and the itching became very severe; to this itching there followed a sharp persistent pain, increased by the passage of feces—which since the month of March had been liquid. At the beginning of May he was seen by Dr. Martineau, who thus minutely describes the character and condition of the ulceration. On the left buttock was an ulcer irregularly round, having its point of commencement in the rectum on the left side of the intestine, and extending to the upper border of the sphincter. The edges which limited the ulceration on the buttock were slightly projecting, not cleanly cut, and gradually merged themselves in the centre of the ulcer. The margin of the ulceration was slightly bluish in colour, and presented numerous nipple-shaped projections, or multiple yellowish granulations, about the size of

a pin's head. Some of these granulations were in process of destruction; they were replaced by an ulceration which, gradually extending itself superficially and deeply, became mingled with the central portion of the ulcer, which was gray and not bloody; it presented also numerous nipple-shaped projections, yellowish, and separated one from the other by alveoli, giving the ulceration the aspect of areolar tissue, and also by fissures, notably two which, starting from the circumference, were prolonged into the interior of the rectum, extending to the upper part of the sphincter. The antero-posterior diameter of the ulceration measured about 1½ inches, and from without to within it was about 2¾ inches. The ulceration appeared to affect only the skin and superficial parts of the dermis. The ulcer itself was soft and pliable, and had no hardened basis. Around the ulceration on the left buttock, in the sulcus, and on the right buttock, there were eight or ten prominent tubercles, which were not painful. (Two of these tubercles had recently commenced to break down.) The external glands in the groin were slightly tumefied, but not painful.

Dr. Martineau considered that the tuberculous nature of the ulceration could not be doubted. It resembled exactly the tuberculous ulceration of the tongue described by Dr. Féréol. There was not the slightest evidence of syphilis in the patient. If anything were wanted to set the question at rest, it might be found in the fact that the patient had all the physical characteristics of pulmonary phthisis. He had constant cough, great emaciation, diarrhœa, is aphonic, had tubercular ulceration of the fauces, and in all probability of the larynx also. No treatment had availed to arrest the ulcerative process, but the pain was much relieved by the use of a lotion composed of one part chloral hydrate to one hundred of water.

In the discussion which followed, Dr. Féréol agreed with the author in his diagnosis. He had seen several precisely similar cases, and cited two as having occurred last year at the Maison de Santé, and another at the Hôpital St. Antoine.

[Mr. Wm. Allingham has observed ulceration of the rectum, anus, and adjacent parts, to which the description of Dr. Martineau would most accurately apply; but he has never seen in association "tubercles" developed in the buttocks or elsewhere in the neighbourhood of the ulcer, nor the question as to the tuberculous origin of the ulceration so decidedly and unmistakably answered.]—*London Medical Record*, Sept. 23, 1874.

—

On Subcutaneous Fracture of Exostosis of the Femur.

In the *Edinburgh Medical Journal* for July, Dr. Chiene, *à propos* of a case under his own care, asks the question, "Is an exostosis, after it is broken off by violence, ever absorbed?" A boy, aged fourteen, was brought to Dr. Chiene, in April, 1873, with a hard, movable tumour under the muscles of the thigh, above the inner condyle of the right femur; with a history that it was first known to him twelve months previously, when, after recovery from a blow on the inner side of the knee, which had caused swelling and pain, and some inability to bend the joint, he found a hard lump, which he could move backwards and forwards. When he was first seen by Dr. Chiene, there was an irregular osseous mass, freely movable, of the size and shape of a walnut, under the vastus internus, two inches above the condyle. When moved, it rubbed against an osseous surface on the femur, but the feeling of crepitus, although perfectly distinct, was somewhat modified, as if the opposing surfaces were covered by fibro-cartilaginous material. Soreness after violent exercise or free manipulation of the tumour was the only thing complained of; and Dr. Chiene recommended delay before the removal of the detached exostosis, in the hope that its absorption might follow the cutting off of its principal blood-supply. From this date the tumour gradually lessened; in October the boy could feel nothing; and in April of the present year, with the exception of a slight linear projection an inch in length, on the osseous ridge, leading up from and about two inches above the internal condyle, Dr. Chiene could not distinguish any difference between the limbs. The result of this case suggests to Dr. Chiene the

advisability, in the treatment of exostosis, of attempting in the first place to break off the exostosis subcutaneously, by laying hold of it with large forceps, well padded so as to prevent injury of the skin, in the hope that absorption of the tumour will take place in consequence of the loss of blood-supply; and, secondly, that in such a case as his own the surgeon should wait, and not hastily cut down on the tumour to remove it.

The August number of the same journal contains a preliminary notice from Mr. Maunder, of a similar case under his care in the London Hospital. He had in June discussed the possible methods of treatment—subcutaneous fracture, subcutaneous section by chisel and mallet, and by free incision; and on July 8 he was able, under chloroform, to determine that the globular head of the growth was attached by a slender stem to the outside and back of the femur near to the knee-joint. This pedicle was fractured with comparative ease with a large pair of pliers, and with a jerk, the skin being protected with a piece of chamois leather. Some swelling and ecchymosis followed this operation, the result of which is not yet made known.

[Subcutaneous absorption must be a much preferable and infinitely safer method for the removal of exostosis, than that by free incision, an operation bordering often closely on the knee-joint. Accidental fracture of the stem of an exostosis of the femur, when the stem is slender, is not unknown; and it would be well in all such cases to adopt the suggestion of Dr. Chiene, and defer operating, with the hope of ultimate absorption of the tumour. We shall be interested to know the end of Mr. Maunder's case of artificial detachment of the exostosis.]—*London Medical Record*, Oct. 21, 1874.

—

On Three Remarkable Cases of Dislocation.

M. D. Mollière, of the Hôtel-Dieu, in Lyons, relates (*Lyon Médical*, No. 14) the following cases:—

Case 1. *Complete Luxation of the Left Elbow-joint outwards; Reduction.*—This occurred in an idiot, aged forty. The region of the left elbow was swollen, painful, and presented the following appearances: (1) The forearm was flexed upon the arm at an obtuse angle; (2) there was a considerable enlargement of the elbow transversely; (3) the capitellum of the radius was plainly seen beneath the skin, externally; (4) the ulna was not plainly felt, owing to its being hidden by the prominence of the radius; (5) internally was a well-marked eminence, formed by the articular extremity of the humerus, which was readily felt, beneath the integument, in all detail. The anterior aspect of the humerus looked directly *inwards*. Reduction was made, without an anæsthetic, by direct traction and flexion. The bone had been dislocated for three days. The excessive rarity of this accident renders it worthy of record. Nélaton reports one case only in his *Pathologie Externe*.

Case 2. *Dislocation of the Right Femur on to the Dorsum Ilii, of fifty days' standing. Reduction by Pouteau's Method.*—A man, aged sixty, fell from a tree, and dislocated the head of the thigh-bone on to the dorsum ilii. On presenting himself at the Hôtel-Dieu, all inflammatory symptoms had disappeared, and the amount of shortening was rendered appreciable by Giraud-Teulon's method of triangles, thus—

	Sound side.	Injured side.
From the anterior superior iliac spine to the ischium	18.50	18.50
From the anterior superior iliac spine to the external condyle of the femur	47.50	44.50
From the ischium to the external condyle of the femur	40.50	40

Chloroform being administered, Pouteau's method was first tried without success; and, on breaking up the adhesions, direct traction was tried, and failed, and so also did Jarvis' apparatus as modified by Matthieu, both with the limb flexed and extended. A last attempt, however, by Pouteau's method, succeeded, an assistant's hand being placed between the front trochanter and a solid *point d'appui* placed immediately behind it. M. Mollière employed

flexion, rotation, and then abduction, and employed considerable force in this latter movement, using a lever, having as its power the shaft of the femur, its fulcrum the trochanter, and weight, the head of the femur. The distinct presence of the head of the femur lying amongst the soft parts, and the inguinal depression being clearly marked, convinced M. Mollière that he might reasonably employ such severe measures for so considerable a time, notwithstanding the patient's age, since the obstacle lay exclusively among the soft parts, and there was no malformation.

Case 3. *Compound Fracture of the Right Tibia and Fibula; Dislocation on the Dorsum Ilii, with severe Contusion of the Trochanteric Region; Injury to the Face; Cerebral and Spinal Complications; Reduction by Pouteau's Method; Recovery.*—The patient was a boy, aged fourteen, who fell from a building. On admission his symptoms were so serious that M. Mollière, believing death imminent, applied a silica bandage, with the view of alleviating his suffering, without further examination, and placed the limb on a Bonnet's splint. He improved by degrees, and, on an examination made on the sixteenth day, a complete dislocation into the dorsum ilii was detected. Ether was administered, and an assistant instructed to follow the movements of M. Mollière by sustaining the fractured limb, which was enveloped in its apparatus. The process of reduction was commenced, and it was decided not to prolong it for fear of breaking up the uniting fracture, so the assistant placed his hand behind the trochanter, whilst M. Mollière made the flexion, rotation, and forced abduction. The bone entered the cotyloid cavity immediately.—*London Med. Record*, Aug. 26, 1874.

—

Dislocation of the Head of the Femur into the Great Ischiatic Notch; Fracture of Neck following attempted Reduction at the end of nine weeks.

Dr. Dawson (*Clinic*, Oct. 17, 1874), at a recent meeting of the Cincinnati Academy of Medicine, presented the following report of the case of Capt. W., of middle age, who was badly burned by a steamboat boiler explosion, and at the same time suffered dislocation of the hip into the great ischiatic notch.

"I placed the patient under the influence of ether, and instituted a rotating motion to break up any attachments which the head of the bone had made during its sojourn in its new situation, then I resorted to the ordinary plan of reducing by manipulation. In this, for the first two or three efforts, I followed the advice of our distinguished countryman, Prof. Frank Hastings Hamilton. I allowed the limb to 'follow its own inclination.' Then more force was used, the thigh was pressed forcibly across the abdomen, acting thus as a lever, the head of the bone would be lifted from its new position, so that by a rapid circumduction I expected to throw the head into its proper place.

"At the sixth of these efforts of forcible flexion, adduction, abduction, and circumduction, the neck of the bone suddenly snapped. The sound and the impulse imparted to my hands were very different from those which are experienced when the wandering head drops into the acetabulum. The whole aspect of the case was at once changed. The symptoms of fracture of the neck within the capsule were all painfully manifest. The limb was shortened more than one inch, the foot was everted, preternatural mobility was present, and crepitus distinct. Syme's test disappeared, the head of the bone could still be felt through the rectum, but it ceased to move under the end of the finger when the leg was rotated.

"Fracture of this bone has followed attempts at reduction by all plans, extension, 'lifting method,' and manipulation. Prof. Hamilton refers to a number of these unfortunate cases in his work on Fractures and Dislocations. Dr. Jas. R. Wood, at Bellevue Hospital, in 1865, fractured the neck when forcibly abducting; his patient was sixty years of age, and the dislocation of five months' standing. Dr. David Prince, of Illinois, has had a similar experience. Dr. Markoe reports a case where the neck was broken 'after manipulation had been employed, but while extension was being made by the hands united with a lifting outwards.' Dr. Bigelow, who has written so learnedly and so instruc-

tively upon dislocations of the hip, once fractured the neck of the thigh by 'flexing the limb once slowly upon the abdomen, a movement which was attended with a continued fine crepitation about the hip.' Prof. H. gives five cases in which the bone was broken in efforts at reduction by extension, it occurred with Travers, Malgaigne, Physic, Randolph, and Gwyne.

"After some reflection, and from my limited experience, I can hardly escape the conclusion that in most of the cases in which fracture occurs under extension or manipulation, the bone was evidently diseased. In my own case, although at the time I was making abduction and circumduction, I certainly did not exert force enough to fracture a healthy bone. The case which Dr. Bigelow reports would seem to be one of fragilitas ossium. In Malgaigne's patient the thigh broke at its lower third and that too by extension!"

—

A Rare Form of a Congenital Cystic Fibroma Molluscum of the Elbow; Removal by Operation; Successful Result.

Dr. Charles B. Brigham, of San Francisco, reports (*Western Lancet*, Sept. 1874) the following case of this: J. W., æt. 5 years. The patient was born with a tumour on the left arm, situated over and just below the elbow-joint, on the inner and posterior part of the limb. At birth this tumour was about the size of a hen's egg, soft, and marked at the most prominent parts of its surface with a delicate, nævus-like congestion of the superficial vessels, slightly raised, and giving the skin in that part, a dark-violet appearance; there were also hairs of perceptible length, growing amid the congested vessels. The tumour remained about the same size during the first two years, but in the third year it began to increase, and now it has reached a size given below (4 inches in length by 7 in circumference); it presents to the eye the same general appearance as at birth, only it is larger and more lobulated—its limits are tolerably well defined; the skin over it is somewhat lax and natural in appearance, except at the discoloured portion, which now measures 2 inches by 3, and has many hairs upon it, half an inch in length. To the touch, the tumour is lobulated and very soft, with no pulsation whatever, but with a distinct fluctuation in certain parts. The lobe nearest the wrist appears almost detached from the main tumour, and it is in the direction of this lobe that the tumour increases, burrowing, as it were, under the skin. The tumour is adherent, to a certain degree, and when pressed laterally between the fingers, it gives a sensation as if there were a hard substance in its centre; this hardness was afterwards shown to be due to the dense fibrous stroma of the tumour. The patient has no other tumours or spots on his body; he had repeated falls upon the arm, making the tumour "black and blue," and it was a severe bruise that at last influenced the father of the child in favor of an operation. It was explained to him that the tumour was situated between the skin and the muscles, that it probably had no connection with any large vessels; that its contents were serum, and not blood, as he had supposed; that the elbow-joint was as yet unaffected, and that if the tumour were removed, the motion in the joint would be in no wise impaired. Thus assured, he consented to its removal, and indeed expressed his desire to have had the operation done ever since the birth of the child. On the 6th of August, Dr. G. J. Vanvlack assisting, the patient was anæsthetized. Ethyl was used at first, and in less than two minutes, the patient was completely insensible; ether was than substituted, and continued throughout the operation. An elliptical incision, three inches in length, was made on either side of the discoloured portion of skin; both flaps were then carefully dissected up, so as not to open the cysts in the operation. On the outer side, the tumour was covered by a thin layer of skin, with little, if any, fat; a fact which led to the supposition that the tumour began its existence from that side; and also very early in uterine life, when there was but mucous tissue beneath the skin. On the inner and lower sides, the tumour was enveloped in fat, three or four small vessels were temporarily compressed; no artery of any size was seen; the hemorrhage, which was slight, was mainly venous; the tumour lay on the muscular aponeurosis, attached at two points;

the subjacent muscles were much flattened by the pressure from the tumour; the sides of the incision were brought together by fourteen sutures, and the wound was then dressed with Lister's dressing.

The tumour measured 4 inches in length by 7 in circumference; it was made up of cysts and fibrous stroma, the cysts being the hypertrophied areolar spaces of the connective tissue, while the stroma represented the dividing septa. There were three large cysts, side by side, much the size and shape of a testicle, and many smaller ones, from the size of a pea upwards. The contents of two opened cysts were as follows: the one of clear amber-coloured serum; the other, and larger one, of bloody thickish serum (doubtless not the original colour of the cyst contents, but resulting from an effusion of blood caused by the severe fall upon the tumour). The inner walls of the opened cysts strikingly resembled those of a ventricle of the heart, there being a surrounding network of trabeculæ. There was no point of connection between the cysts; there were no arteries of appreciable size connected with the tumour; microscopic examination showed a tissue made up of curled white fibres; the tumour weighed four ounces.

The sutures were removed from the wound on the 9th, the strips of court plaster substituted; there was no swelling of the arm or hand. The wound was again dressed on the 12th; its lips had slightly separated, but were firmly adherent to the subjacent tissue. The patient suffered no pain; the wound was just cicatrizing, when, on the 19th, a slight redness was observed near the wrist; there was no swelling, but considerable pain; the whole arm was then enveloped in a flaxseed poultice; the redness extended to one side of the wound; a slight swelling near the upper end of the incision was lanced, and gave exit to a few drops of pus. In a few days the redness subsided; the arm was bathed daily in warm soapsuds; the poultices were continued up to Sept. 4th, when the wound was wholly cicatrized; the arm has perfect movements.

—

On the Treatment of Hygromata containing False Cartilages.

At the recent congress of the German Society of Surgery (proceedings reported in *Berliner Klinische Wochenschrift*, No. 35, 1874), Professor Volkmann stated the results of his experience as to the use of drainage in cases of hygroma with floating contents. In three cases of this kind treated in the preceding twelve months, an incision three-quarters of an inch in length was made into the sac at its upper, and another similar incision at its lower extremity; the free contents of the sac were then extruded, and the bodies adherent to its inner surface rubbed off by pulling backwards and forwards through the cavity a tightly stretched drainage-tube. This tube was then left in the sac, and the seat of the operation covered by Lister's dressing. In all three cases obliteration of the sac resulted, without any intercurrent disturbance or the slightest local reaction. He did not observe phlegmon, diffused suppuration, or necrosis of tendon, and the mobility of the fingers remained unimpaired. The removed floating cartilages were found to be concretions formed of coagulated albuminates, and were not organized growths. The name, therefore, of hygroma proliferum is not well adapted to these growths. In one case, where a portion of the cyst-wall was excised and examined, the inner surface was found to be coated by a thick layer of coagulum, which was rough, and studded by tufts projecting into the cavity of the hygroma. Volkmann has also observed along the threads of a seton introduced into an hygroma a thick layer of coagulated albuminates, and at the free extremities of the thread firm club-shaped appendages of the same material.—*Lond. Med. Record*, Nov. 4, 1874.

—

Case of Spina Bifida (Dorsal) cured by Injection.

Dr. James Morton (Surgeon to the Glasgow Royal Infirmary), on two former occasions, recorded in the *British Medical Journal* two cases of spina bifida in the lumbar region, both cured by injecting the iodo-glycerine solution, which

he employs; and subsequently Dr. Watt, of Ayr, narrated two cases treated by the same method and the same liquid, and terminating equally happily.

Dr Morton now records in the same journal (Oct. 24, 1874) an equally fortunate result in the case of a child presenting a similar deformity in the upper dorsal region. The following are the notes of the case:—

"On June 22d, Dr. Thomas Smith asked me to see a case of spina bifida with him. The patient, a little girl named Christina Morrison, aged seven weeks, was rather delicate, and did not seem to be thriving as well as the mother could wish. The tumour, which was present when the child was born, was globular in shape, about the size of a peach, not pedunculated, elastic, and semitransparent. It was situated rather high up, being immediately over the seventh cervical and first dorsal vertebræ, and, as a consequence, greater care was required in its treatment. It was said to have burst, and a quantity of a clear fluid to have escaped. The opening seems to have closed; and, the fluid reaccumulating, the swelling became larger than ever. Some time before the case was brought under my notice, the child was presented in the wards of a large surgical hospital, but nothing was attempted in the way of cure or treatment.

"June 23d. The tumour was tapped by means of a fine trocar and canula, and a quantity of fluid drawn off. At this tapping, a small quantity of the iodo-glycerine solution was injected, and the puncture carefully closed by means of collodion. Besides a little paleness, no appearance of shock was manifested, the child speedily taking the breast. Towards evening the child became restless and did not sleep during the night. It cried occasionally. As the morning wore on, it became calmer, and then had a very refreshing sleep. The fluid again accumulated, showing that the injection had not fully answered my purpose.

"On July 3d, the tapping and injection were repeated. This time no effect was produced upon the child. It took the breast, and slept soundly and well, and, in fact, behaved as if nothing had happened more than usual. A good deal of serum and blood escaped after the injection, and it was with much difficulty that I could get the puncture closed. This I ultimately managed by means of a piece of cotton rag soaked in collodion.

"July 25th. The child was visited to-day, and the mother said that ever since the last operation the child had done well; the tumour gradually diminished in size, and the health of the child was greatly improved. It has complete power over its limbs, and seemed to delight in using them. The mother remarked that the 'bairn' never enjoyed such good health. The tumour was about the size of a large strawberry, and of a light purplish colour. It was quite solid. The surface was irregular and puckered up something like a child's scrotum which had been exposed to the cold, or rather like a bulky raisin. On August 18th the child continued well.

"This case, and the other four to which allusion has been made, are the only cases which have been subjected to this mode of treatment, and all have proved fortunate. Though the cases are still few, the uniformly successful results are most encouraging, and may induce others to try to increase the number of cures. Success in every instance it would, I fear, be Utopian to expect; but if success become the rule and failure the exception, this mode of procedure may be held to be the safest hitherto made known in the management of such a dangerous congenital malformation."

—

Traumatic Facial Neuralgia; Excision of a Portion of the Inferior Dental Nerve and of the Infra-orbital Nerve; Complete Relief.

Dr. Charles B. Brigham, of San Francisco, reports (*Western Lancet*, August, 1874) the case of C. P. C., male, æt. 55, who, eight years ago, was struck in the face with a chair, it splitting the nose down to the right cheek. A month afterwards the wound was healed, leaving a cicatrice 1¾ inches in length. Two years later the patient felt a tingling in front of the ear, and along the roots of the teeth of the upper jaw. There was a crawling pain and

uneasiness, at times coming in flashes, as if many needles were pricking the cheek: it seemed to go from tooth to tooth. In the course of the five subsequent years, eleven sound teeth were extracted in hopes of relief. The pain then concentrated itself under the right ala of the nose, beneath the cicatricial tissue, upon which, should any one press, ever so slightly, a pain would start up all over the right side of the face—at last the pain extended over the entire side of the face up to the forehead. Momentary or continued pressure on the supra-orbital nerve, or on the eyeball, aggravated it so much that the tears would flow afterwards. As a general rule, whenever the patient swallowed either food or drink, the pain was agonizing; if he passed his tongue over the lips it felt like a hot coal burning him; if he pressed his lips together the pain, as he expressed it, was "tremendous." Even the act of speaking was attended with pain, coming on by fits and starts. At night the simple moving the head, so that the pillow pressed on the cheek, would wake the patient up five or six times. On account of the continuous pain, morphia had been given subcutaneously to the amount of 6 grains every twenty-four hours. The interruption of sleep, the difficulty experienced in taking food, and the almost constant pain (there being about thirty spasms a minute) had reduced the patient to a very low condition. The various local and general means of treating neuralgia had been resorted to in this case without result. Finally, the patient resolved to try the chances of a surgical operation. It was decided to excise as large a portion as practicable of the infra-orbital nerve, and also, as there was great pain in the lower jaw and lip, excision of a part of the inferior dental nerve was thought necessary. On the 25th of July, Dr. D. J. Vanvlack assisting, the patient being etherized, an incision, slightly concave towards the angle of the mouth, and measuring exactly two inches in length, was made on a line extending from a little below the coronoid process to the angle of the jaw. The fibres of the masseter muscle were exposed and separated in the line of the incision by means of a director. The periosteum was removed by means of a scraper as far as was necessary, in order to admit the crown of the trephine. Small retractors held the muscle and skin out of the way of the saw as it passed through the plate of the bone—the disk being elevated and removed, the nerve was immediately exposed, and by means of a small blunt tenaculum was separated from its neighbouring vessels; it was then cut with a pair of scissors. It had nothing abnormal in its external appearance. The disk of bone removed bore the imprint of the dental canal, running along at the side of the hole made by the centre-pin of the trephine: one small, cutaneous vessel was tied. Leaving a dry sponge in the wound, a triangular flap of skin was then dissected up from under the right eye, the base of the flap being the infra-orbital ridge, while the apex pointed to the ala of the nose; three large branches ($\frac{3}{4}$ of an inch in length) of the infra-orbital nerve were excised; eight small vessels were ligated, four silk sutures united the edges of the wound, leaving the ligatures to come out at the inferior angle. Three sutures were then placed in the lower wound, and two damp sponges were placed over each line of incision, and the whole side of the face was dressed with carbolized glycerine (1 to 10) —Lister's gauze and cotton-wool—an injection of brandy was given per rectum during the operation; a subcutaneous injection of $\frac{1}{2}$ grain of morphia was given directly afterwards. The pulse before the operation was 120; in the evening afterwards was 80, T. 100; skin moist. The patient has had two naps in the afternoon; when he drinks, he fancies that the tumbler has a bit broken out of it; his wife has not seen him so comfortable for years. He himself says that he has had two slight flashes of pain. It is questionable whether this comes from the old trouble, or whether it is not a sensation similar to that which a person feels after a painful limb has been amputated; or again from the irritation of the proximal part of the nerve caused by the operation of excision. July 26th, slept well all night; for many years he has not been able to drink more than a swallow at a time; now he drinks when he pleases without pain; he feels more soreness on the left side of the jaw than on the operated side; has had a few twinges of pain in the upper lip; says he should not have noticed them if he had not had them before. P. 82, T. 102. July 30th, the lower jaw wound has healed by primary union. Nose and right cheek attacked

with erysipelas, which by the 4th of August had faded away, and on the 15th the patient walked out of doors. On August 22d, it is noted that the patient has no pain whatever, no paralysis of the face; eats well, passes excellent nights, and is on the way to speedy recovery.

—

Neuralgia of the Lower Jaw and Tongue treated by Excision of the Nerve.

Dr. Theo. A. McGraw, of Detroit, reports (*Detroit Review of Medicine and Pharmacy*, Sept. 1874) the case of Mr. H., of Faribault, Iowa, who had suffered for several years from a neuralgia of the left side of the tongue and lower jaw, which was becoming more and more constant and severe. The agony was so great that he was at times prevented from talking or eating. He had tried every remedy of which he had heard, and came to Ann Arbor, in the winter of 1871–72, to have the nerves leading to the painful areas excised. I saw him first in January, 1872. I examined him carefully, to find, if possible, a cause for his terrible suffering. The teeth had been for the most part already extracted, and the gums seemed sound and natural. Careful investigation failed to reveal any eccentric cause of irritation, and I finally yielded to his desire, and operated upon him, in the hope that the disease might have its seat in the terminal nervous filaments. I performed the operation in the presence of the medical class, and by the assistance of Dr. Frothingham, on the third of February, 1872. I cut down upon the ramus of the lower jaw, splitting the masseter muscle and pushing its fibres aside. I then trephined the bone at the point where the inferior dental canal begins, and excised through the opening about half an inch of the inferior dental and gustatory nerves. The patient did well and recovered.

"I wrote to him a few weeks since to inquire as to the final result, and learned that he had remained free from pain for fourteen months. In April of 1873 it began to return, and now he describes it as bad as ever."

Dr. McGraw, in reviewing this case, says, "it is evident that the seat of the neuralgia is in this case somewhere in the peripheral nervous filaments, although no disease of the tongue or jaw could be discovered by the eye or touch. The recurrence of the pain in April, 1873, would indicate that a regeneration of the nervous tissue had taken place at that time, and that the nerves had then begun to resume their functions. I have advised the patient to have a tenotome passed through the jaw at the spot where it was trephined, and have the nerves re-divided. It would seem as if some process by which the nervous regeneration could be prevented in these cases ought to cure neuralgias of this description.

"I have been pleased with a suggestion of Dr. W. H. Stevens, of Faribault, respecting neuralgias confined to the jaw alone. The doctor suggests that the dental canal be plugged with gold after the division of the nerve, thus making its regeneration impossible."

Midwifery and Gynæcology.

On a Case of Twins at the Eighth Month, with a Peculiar Ring-shaped Low Situation of the Placenta, without Hemorrhage.

Professor Alois Valenta, of Laibach, reports in Betz's *Memorabilien* (vol. xix. part v. 1874) the case of a primipara, aged twenty-eight, who came under his care on November 13, 1871. The case was made out to be one of twins. Pregnancy had been prematurely interfered with at the eighth month, by a severe spasmodic cough, aided by the irritability arising from the great distension; and the patient had pains in the loins indicative of parturition. A head and a breech presented. Distinct labour-pains set in on November 19; but, as little progress

had been made at noon the next day, the membranes were ruptured by means of an elastic catheter, and delivery completed. The breech case was delivered first; one child weighed three pounds, and measured fifteen and three-quarter inches long; the other weighed two and three-quarter pounds, and was fifteen and a half inches long. They were considered to be eight months' children, although the mother menstruated last on June 24. The infants died on the third day. There was some *post-partum* hemorrhage, which was arrested by the injection of ergot *per rectum*, and the woman was discharged on December 9th. The placenta was especially noteworthy. There were two after-births, two amnia, and two choria. They were so connected one with another that to judge from the rent in the membranes, their lower borders closely surrounded the internal os, forming a ring about five or six inches broad. The lower part of the ring corresponded to a rupture of the membranes, which was performed artificially in one only of the sacs, and was about six and a half inches in the transverse diameter. The four membranes formed a septum, dividing it into two nearly equal parts. The diameter measured five and a half inches. The average diameter of the ring, at its upper part, was eight and a half inches. The two ova were inclosed, as it were, by a belt formed of the two placentæ, which accounted for the rather unusual occurrence of being able at first to distinguish the presentation of each fœtus with equal facility. There was no hemorrhage, although the placentary sites were so low.—*Lond. Med. Record*, Oct. 14, 1874.

—

On Bifid Vagina as a Cause of Impediment to Delivery.

Dr. Valenta, of Laibach, relates in Betz's *Memorabilien*, vol. xix. part 5, the case of a primipara, aged twenty-six, who entered the clinique in labour; on examination, the os was found dilated about the size of a crown. the vagina still firm, and the membranes ruptured. On repeating the examination later on, the vagina felt narrower, and the os so small as to be incapable of admitting the tip of the finger. A closer investigation to account for this strange phenomenon disclosed a "vagina duplex."

The septum was very vascular, about four lines thick, and of a structure precisely similar to the vaginal walls; it passed from the surface of the urethra directly backwards, dividing the vagina into two nearly equal parts, the right being the smaller. The finger could be hooked over its upper margin, which was in close proximity with the os, and a finger introduced into the opposite vagina could be made to meet the other above the septum. By means of spatulas, the fœtal head could be seen pressing down on the septum with each pain. It was divided with the blunt-pointed scissors, care being taken to make the incision nearer to the posterior vaginal wall than to the anterior. There was considerable hemorrhage from the anterior flap, which was ligatured. The head came rapidly down, completely arresting further hemorrhage. Not a drop of blood came away after delivery. The ligature was removed on the third day for fear of causing a slough. The woman did perfectly well. Strange to say, on examining the vagina some short time afterwards, the anterior flap was entirely gone, and not a trace was left to show that such a condition had ever existed, whereas the posterior flap formed a firm prominent ridge. The uterus was normal.—*London Med. Record*, Oct. 14, 1874.

—

On Prolapse of the Umbilical Cord.

Dr. Geo. Engelmann, of St. Louis, contributes to the *American Journal of Obstetrics*, August 4, 1874, a paper on this subject. He says that the causes of prolapse of the umbilical cord have mainly proved to be such circumstances as prevent the complete filling of the pelvic brim, and the close adaptation of the lower segment of the uterus to the presenting part. One of the more important of these circumstances is the shape of the fœtal part itself, and thus foot-presentations are more frequently complicated by prolapse, whereas vertex presentations are least threatened. The fœtal appendages are of secondary and minor importance; undue length of the cord, its marginal insertion or

attachment of the placenta low down in the uterus, can never be direct causes of the accident; excess of liquor amnii is alone to be feared.

Some stress is to be laid on abnormality in shape and position of the womb, much more upon twin-births. More dangerous than any of these is the contracted pelvis, which Dr. Engelmann proved by measurements and numbers to be the main cause of prolapse of the funis, directly and indirectly. Primiparæ are, comparatively speaking, almost as frequently afflicted as multiparæ.

The *post-mortem* examinations revealed only the lesions due to death from asphyxia, nothing characteristic for death caused by prolapse of the cord.

The prognosis is somewhat better than generally allowed; most favourable for foot presentations, while vertex presentations are more dangerous than any; the case being, under all circumstances, more threatening when occurring in a primipara.

In the treatment the postural method is important, more as an adjuvant, however, than as a method in itself of dealing with the prolapse.

Version is comparatively the most successful of all operations, and should be more frequently resorted to when any choice of method is given, as in head presentations; the application of the forceps and reposition of the cord are less to be relied upon; but, whatever may be the course determined upon, it must be borne in mind that the success of all operations by which we seek the preservation of the child whose life is threatened by compression of the prolapsed cord is in a measure dependent upon the judicious use of chloroform, and its application to full surgical anæsthesia.—*London Med. Record*, Oct. 28, 1874.

—

On Bleeding to Death of the Fœtus during Parturition.

Dr. Valenta, of Laibach, relates, in Betz's *Memorabilien*, vol. xix. part 5, a case in which bleeding to death of the fœtus took place during parturition, through a rent in the umbilical vessels, which crossed transversely over the os.

A woman was delivered of her second child at full time The mother stated that before the labour-pains began the waters ruptured, and from that time, up to the completion of the labour, which was of ten hours' duration, she had a continuous discharge of blood. At no time, however, was the stream observed by the attendants to be of a pumping character. On examining the after-birth, it was found to be about six inches in diameter, situated high up *in utero*. The umbilical vessels were given off from its lower margin, and before uniting to form the cord they ramified in the surface of the chorion for about four and a half inches. The cord measured sixteen and a half inches. There were four veins passing from the placenta, which soon united to form two venous trunks, one of which, the smaller, arched outwards before uniting with its fellow to form one umbilical vein.

At the point of junction, and at a slight distance from it, were two rents. The two arteries united to form one trunk on piercing the chorion, which immediately gave off a small branch that coursed along with the above-mentioned smaller vein. This was also torn across.

This case clearly shows the necessity of carefully examining the placenta of any woman where death of the fœtus has occurred.—*London Med. Record*, Oct. 14, 1874.

—

On a Case of Extrauterine Pregnancy.

Dr. Ludwig Bandl reports in *the Wiener Medizinische Wochenschrift*, of August 8, a case of extrauterine fœtation occurring in the practice of Professor Karl Braun-Fernwald, in which rupture of the ovum took place at an early period of pregnancy, and the embryo arrived at full maturity in the cavity of the abdomen.

According to Hecker and Cauwenberghe, ovarian and tubular pregnancies generally terminate fatally both to mother and fœtus about the third or fourth month, through rupture of the ovum. In abdominal pregnancy (extrauterine) this accident often does not occur until towards the end of gestation. The

fœtus generally dies forthwith, and it is only in very rare instances that the ovum develops and lives in the abdominal cavity (*graviditas extrauterina secundaria*). Most gynæcologists are incredulous of this form of fœtation. Schröder says that there is no doubt that a fœtus in this condition, as it becomes encapsuled by new inflammatory exudations, can live but for a short time. Only one similar published case to that now reported has been found by the author (Walter, *Monatsschrift für Geburtskunde*, vol. xviii.). The present one occurred in a woman aged thirty-five, mother of two children. Each previous confinement was natural. She was admitted on Nov. 20, 1871, into the hospital in a wretched condition. She menstruated last at the beginning of April. During the first two months of gestation she was quite well; since then she had been in continual pain, and had become greatly emaciated. On admission the abdomen was distended, resonant over its whole surface, with distinct fluctuation. The fœtus could be easily made out, and its heart-sounds heard. *Per vaginam*, the os was found to be as high as the arch of the pubes, and was only reached with difficulty. It was soft and patulous, admitting two phalanges of the forefinger. The fœtus could not be felt; but by bimanual examination the body of the uterus was made out to lie in the left side, and in the right iliac fossa, and stretching in the pelvic cavity an elastic swelling. Extrauterine fœtation was diagnosed. The uterine sound was used three days afterwards, and passed four inches to the left. With a delicate movement of the sound towards the right, it was made to pass nine inches, and its point could be easily felt beneath the thin abdominal walls in the neighbourhood of the umbilicus. This passage of the sound made the diagnosis of extrauterine fœtation somewhat doubtful. The sound had either passed into the gravid uterus or into the dilated cavity of a uterus bicornis or duplex, or there might be an intrauterine pregnancy along with the extrauterine. Perhaps the uterus had been perforated or the sound had slipped up the Fallopian tube. Although Matthews Duncan, Veil, and Hildebrand maintain the possibility of the uterine sound passing into the Fallopian tube, still, judging from experiments on the dead body, Dr. Bandl thinks it scarcely credible. He believes with König, that in all these instances there has really been perforation of the uterine walls. The puerperal uterus is readily perforated by a slight pressure of the sound; and that organ in extrauterine fœtation is in a similar condition. The writer states that he has in several cases perforated the uterus in the dead subject with the sound without using any force, in women who have died during the puerperal state. Alt's experience is the same. Martin reports a case where, some months after parturition, on laying open the abdomen, the point of the sound was found sticking through the walls of the uterus. In the above case it was, therefore, very probable that the instrument had perforated the uterus.

On November 29 Professor Braun held a consultation with Professor Späth and Professor G. Braun on the case. The sound had failed to give any assistance in ascertaining the nature of the swelling lying to the right in the abdomen; nor did it exclude the idea of a uterine pregnancy, or of a fœtus in the right half of a uterus duplex. The body felt in the right iliac region might be either the placenta, a tumour, or an ovarian cyst. The woman having been anæsthetized, the sound again passed the ten inches in the same direction as before. With the hand in the vagina, the forefinger could be passed easily inside the uterus, and the fundus could be easily pressed down from without on the finger. Nowhere could any opening be felt indicating a double uterus. The swelling on the right side from its shape and consistence was believed to be an ovarian cyst, about the size of a fœtal head. During the examination two pieces of decidua, each about a square inch in size, came away. The fœtus was made out to be about seven pounds in weight. The patient would not submit to any operation. The next day feverish symptoms set in, and on the fourth day she suddenly collapsed and died. A living child, weighing eight and a quarter pounds, was removed by abdominal section five minutes after death, but it only lived ten minutes. Six to eight pints of fluid escaped at the moment of opening the abdomen, but no portion of fœtal membranes could be found.

Dr. Kundrat on the next day made a necropsy. The organs of the head and chest were normal. There were five or six pints of turbid serous fluid in the peritoneal cavity. The omentum was adherent, and the anterior walls and the peritoneum were injected, and covered with a deposit of loose false membrane. On removal of the small intestines the cavity in which the fœtus had lain was apparent. The anterior and lateral walls were formed of a thick false membrane, two or three lines thick, covering the abdominal parietes. The posterior and superior walls were formed slightly by the posterior abdominal parietes, but chiefly by the small intestines, which were connected by membranous bands, and by the ascending and descending colon. The inferior wall was made up partly of a tumour, and partly of the various pelvic organs bound together. There were numerous fibrinous bands stretching across from one side of this cavity to the other. The uterus lay to the left; it was five inches long, and close to the orifice of the left Fallopian tube was the spot through which the sound had penetrated. The left ovary was of normal size; the right was reduced one-half, and, with the right Fallopian tube, was bound down to a swelling six inches long, five wide, and four thick, lying partly on the right iliac fossa and partly on the pelvis, and united to the posterior abdominal wall by thick false membranes. This tumour contained the placenta. The walls of the tumour consisted of firm strong layers, three or four lines thick. Opposite the uterus there was a small round opening, with a sharp margin about an inch across, through which the cord passed from the placenta to the fœtus. It was wound round the uterus and slightly attached to it. From the opening, brownish-yellow wrinkled fœtal membranes, evidently belonging to an earlier stage of pregnancy, bulged out around the umbilical cord. The walls of the tumour in which the placenta was were quite smooth to the touch.

From this condition of things there can be no doubt that the ovum burst at an early period of pregnancy into the peritoneal cavity. The extraordinary part is, that with the exception of continuous pain and gradual emaciation, the woman never had a day's illness. The rupture took place most probably about the third mouth. The tumour was nourished by branches from the iliac arteries. The distal end of the right Fallopian tube was intimately connected with the tumour. Whether it was a tubar or tubo-abdominal pregnancy could not be distinctly made out.—*London Medical Record*, Oct. 21, 1874.

—

Two Cases of Extrauterine Pregnancy followed by Recovery.

M. Gerpouillot de Menthin reports, in the *Archives de Tocologie* for 1874, a case of extrauterine pregnancy, terminating at the end of fourteen years by the expulsion of the entire skeleton of the fœtus by the rectum. The case was that of a woman who, after having presented all the signs of pregnancy, was not delivered at the presumable termination of gestation. The abdomen diminished in size so much as only to present a small development, which was attributed to the presence of an intra-abdominal fibrous tumour. Fourteen years afterwards, after having felt somewhat acute pains in the abdomen, this woman expelled by the rectum all the parts of the skeleton of a fœtus in succession. In two days she was in her usual state of health. A second case is reported by Dr. Woodbury, and refers to a woman, thirty years old, who, after twelve years of marriage, complained of a very painful tumour situated in the left lumbar region. The neck was large and open. Ergot of rye was given, so as to bring on the expulsion of a product of conception which was supposed to be inclosed in the uterus. A month subsequently, a discharge of blood from the rectum occurred, followed by the expulsion of a child's arm The next day the patient felt something in the rectum which she could not expel. It was extracted, and found to be the greater part of a fœtus, the placenta, and the umbilical cord which had remained attached to it. The patient completely regained her health.—*British Medical Journal*, Oct. 24, 1874.

On Multiple Disjunctions of the Bones of the Face in a Fœtus.

M. Ch. H. Petit (*Le Progrès Médical*, p. 413) relates a case of a presentation with prolapse of an arm and the cord, thrombus of the vulva, and rupture of the uterus.

The medical man who attended the patient stated that the thrombus appeared before making any attempts at delivery. He applied the forceps, but entirely failed after repeated trials to effect delivery. When admitted into the hospital under M. Chantreuil, she was in a collapsed state; that gentleman replaced the arm, and recommended no further intervention but to stand by and watch until the head came down, which he thought would slowly take place; but should the head not rotate, then he would perform cephalotripsy. The arm again came down, the patient became more and more restless until the pains gradually died away, and she sank ten hours after her admission. M. Chantreuil declined to interfere, as it was useless, The necropsy showed a rupture of the uterus at the right side with the fœtus half projecting through it into the abdomen. The fœtus was beginning to decompose. The remarkable part was that the bones of the face and portions of the several bones were completely disarticulated. The lower jaw-bone was separated at the symphysis. The malar bones were disjoined from the zygomatic processes and from the superior maxillary bones; the latter were separated from each other, and the sutures between the nasal processes and the frontal bone were disjoined. The same was the case with the connections between the vomer and the palate and other bones. Where these separations had taken place the periosteum was torn off; but there was no infiltration or escape of blood in the vicinity of these joints, showing they were *post mortem*, and evidently caused by the force used in the attempts at extraction by the forceps. M. Chantreuil believes that, if the woman had been left to herself, and there had been no attempt at delivery, either by version or forceps, she would have done well. Interference had excited strong uterine contractions, which terminated in rupture of the uterus.—*London Medical Record*, Oct. 21, 1874.

—

On Uterine Souffle after Confinement.

In instituting researches into this physiological phenomenon, M. Bailly (*Archives de Tocologie*, 1874) has been actuated by a desire to see what effect the process of involution had on its frequence, its tone, its intensity, its duration, etc.; its practical application may not as yet be apparent, and its importance he in no way wishes to exaggerate.

Frequence.—He made observations upon seventy-eight women, taken promiscuously amongst the patients. A bruit was discoverable sixty-eight times, or in the proportion of 87.1 per cent. Amongst *enceinte* women, M. Depaul found that it existed in about 95 per cent. of the cases examined. It is, therefore, rather less frequent than Depaul thought.

Character.—In the large majority of instances the tone was soft, liquid, and prolonged, not unlike the sound of the syllable *vous*, when spoken slowly by a bass voice; it is always intermittent, and its duration is longer than the pause. The *bruit de diable*, so frequently heard during pregnancy, was not once observed. The *intensity* is about the same as the souffle heard between the fourth and fifth month of pregnancy. Three or four times it was as loud on the morrow of the confinement as at the end of pregnancy. The larger the uterus, the louder the sound.

The chief difference in the souffle in the *enceinte* woman and the puerperal woman consists in the tone of the latter being of less volume, less lasting, and less strong. The sibilant, musical, and rough notes, often heard in the pregnant woman, are very rare in the other.

The sound is generally heard over the sides or over the lower half of the uterus, rarely over the superior moiety. It predominates on the left side; out of fifty-eight cases it was found of equal intensity on both sides fifteen times, stronger on the right thirteen, and on the left twenty-six times. The position of the uterus did not alter the ratio.

Progress and Termination.—There is an intimate connection between the subsidence of the uterus and the disappearance of the bruit. In the majority of cases it disappears when the uterus is about 11 or 12 centimètres above the symphysis pubis, but in some cases it has been observed to vanish when the womb was 14 or 15 centimètres above the pubes, and to exist when it was 8 to 10 centimètres, and that two or three days after labour.

Duration.—The maximum was in forty-seven women 138 hours; the minimum ten hours, the mean sixty-three hours. Circumstances influencing the force and duration of the souffle are, the contractions of the uterus, death of the fœtus *in utero*, long previously, and profuse hemorrhage. In two cases of puerperal fever, the sound was heard for two days in spite of the fever. The uterine contraction either enfeebles the sound, rendering it very short and very harsh, or completely arrests it; only once was it found to increase it. The delivery of a macerated child increases the tone; the same is observed *ante partum*. The explanation is, that the death of the fœtus lessens the vitality, and as a consequence the tonicity, of the uterus, and increases the disparity of size between the extrauterine arteries and their interstitial branches. Excessive hemorrhage is believed to act in the same way.

Anatomical Seat and Approximate Cause.—The observations made during the investigation of the *post-partum* uterine souffle fully coincide with those of MM. Chauveau and Boudet, and conclusively prove that it has its seat in the arterial uterine system, and that its approximate cause is the passage of the blood from relatively smaller vessels into larger sinuses and vessels. M. Bailly comes to the following conclusions:—

1. The expulsion of the child and the secundines does not at once arrest the uterine souffle of pregnancy, but nine out of ten times it exists a variable time after delivery.

2. Its tone is soft, without pulsation, and clearly intermittent. Any other character is very exceptional.

3. The intensity of the souffle gradually diminishes until it entirely disappears. As long as it lasts, it alternates between more or less elongated increase and diminution, of which the exact cause is not very apparent.

4. Its mean duration is between two and three days (sixty-three hours); in rare instances, it is prolonged to the sixth day.

5. The souffle cannot have its seat in the vessels situated behind or at the sides of the pelvis, but evidently depends on modifications impressed on the vascular apparatus of the womb by pregnancy, which is conclusively proved by uterine contraction, either enfeebling or completely suppressing it.—*London Med. Record*, Oct. 21, 1874.

—

On Occasional Arresting and Discutient Influence of Pregnancy over Pelvic Abdominal Tumours.

Dr. Alexander Milne read a paper on the subject before the Obstetrical Society of Edinburgh, on May 13, 1874, illustrating it by three cases (*Edinburgh Medical Journal*, August, 1874). He combats the view that has been held by most authorities, that pregnancy is favourable to the growth of cysts, exciting inflammation, or causing adhesions, or leading to suppuration, and that women with cystic ovaries should either not marry, or, if married, should refrain from intercourse.

He relates three cases, showing that it had the most beneficial effect in causing complete absorption of the ovarian cyst.

Case 1.—A single lady consulted him previously to marriage, in whom he discovered in the right utero-rectal fossa a unilocular ovarian cyst, about the size of an orange. About the end of the fourth month of pregnancy, she was seized with sharp pains over the abdomen, and was exceedingly prostrate when seen, rejecting all food. Pain was relieved by opium, and the vomiting ceased in a couple of days. She was delivered at full time with a healthy child; and has had two children since. The tumour quite disappeared. [It is not stated when the cyst disappeared, whether before or after her first confinement, or one of the subsequent labours.—*Rep.*]

Case 2.—A married woman, mother of three children. When in labour with her fourth child, there was found to be a large elastic tumour in Douglas's pouch; it was pushed above the brim, and the delivery was rapidly and safely accomplished. A couple of years afterwards she was again brought to bed; this time the tumour came down as before, but was much smaller. This year she gave birth to a child; the cyst was to be felt, but so much diminished in size that it required no interference.

Case 3.—This case was somewhat similar to the last. The patient was a multipara. The tumour could not be returned, and had to be delivered by turning twelve hours after parturition. There were intense abdominal pain and other symptoms of peritonitis. The woman recovered. Dr. Milne had not seen her since to make any examination as to whether the tumour had diminished or not, but he believed such to have been the case.

These tumours were all diagnosed as unilocular ovarian cysts, and were discussed, the writer believes, through the pressure of the gravid uterus, acting similarly to the effect produced by external bandaging. Instead of matrimony or intercourse being prohibited, it should be regarded as a remedial measure. —*London Med. Record*, Sept. 9, 1874.

—

On Esthiomène, or Lupus of the Genitals.

Dr. Bernutz, in the *Archives de Tocologie* for July, 1874, states that he has only seen five cases of this disease during twenty-five years' hospital practice. It differs in no respect from the lupus that affects the body generally, but in the anatomical difference of the structure affected. There are two forms—the erythematous and the tubercular. The former is the more rare, and is characterized by a reddish-violet blush, similar to what is observed in the face. It is always connected with the other variety. It consists of a softening of the cutaneous tubercles, which helps to diagnose it. The latter form is the more common, and is to be observed uniquely on the "*Privates.*" It is seen most characteristically on the mons Veneris, on the external surface of the labia majora, and on the perinæum. Its differtial diagnosis, especially the ulcerative form, from two varieties of syphilitic ulcerations, is very difficult. It is the more so, as many affected with this disease have very suspicious antecedents. The chief signs are its dull-red tinge, covered with a layer of imperfect epithelium, and, finally, its progress; healing on one side, breaking out on the other, in parts oscillating between an ulcerated surface and cicatrices. Neither in syphilides nor in cancroids is this peculiar feature observable, which in a marked manner distinguishes it from all other affections. He relates a case, occurring lately in a married woman, of a scrofulous history, but with no trace of syphilis. It seemed to result from poor living and bad air. She had given birth to a child a few months before; since that time she had had leucorrhœal discharge. Careful microscopical examinations of portions of the parts affected were made by M. Martin. The papillary vegetations were covered with thick layers of epithelium, more deeply of connective tissue, with an alteration in the lymphatics. There were a few fibrillæ of areolar tissue containing small round embryonic cells. The inner lining of the bloodvessels was formed of swollen epithelial cells containing ovoid and large nuclei. The cellular tissue which formed their base consisted of thin fibrillæ, and of elastic tissue in the form of a network. The most marked peculiarity existed in the lymphatics, which were thick, sometimes spherical, sometimes ovoid or cleft on section. The internal surface had one or two layers of epithelium. The cells of the most external of these two layers contained large ovoid nuclei stained red with carmine. In the innermost layer the cells were irregular, incomplete, having nuclei, large, spherical, at times stained by carmine through their whole substance, at others only at their margins. The central canal contained a coagulated material, uniformly coloured of a deep red with carmine. The changes were exactly analogous to those described by M. T. Renaut in the *Archives de Physiologie*, July, 1872. The treatment consists in improving the general health, excising

certain portions, and applying pledgets of lint dipped in tincture of iodine, and an opiate cerate, so as to exert pressure on the parts.—*London Med. Record*, Oct. 14, 1874.

—

On Constriction of the Vagina, Vaginismus Superior, and Vaginismus properly so called.

In the *Gazette des Hôpitaux* (August 29, 1874) Dr. Victor Revillout investigates a case that very much surprised him, and which appeared inexplicable from our present state of science.

Three years ago a young woman, a primipara, came into the Hotel-Dieu to be confined. The labour was prolonged. The *interne* applied the forceps. The blades were apparently introduced with ease, the head of the fœtus being at the brim. As the first efforts at traction was ineffectual, the forceps was removed, and the physician in charge was sent for. He arrived in three-quarters of an hour. On attempting to apply the forceps, he found it impossible to do so, as, a little below the os, the vagina was divided into two parts by what seemed to be a kind of double band, stretching completely across from before backwards, almost perpendicularly to the axis of the body. In spite of the affirmation of the *interne*, he refused to admit that the blades had ever been passed, and the bands were, in his estimation, cicatricial. He made a long incision on each side of the vagina parallel with its axis, almost perpendicular to the base of these two folds. The fœtus was then extracted without difficulty.

The woman died three days afterwards of uterine phlebitis. In making a *post-mortem* examination, not a trace of any cicatricial band could be found. The vagina was healthy and normal. Around the wounds there was no projection whatever to explain the necessity of making the deep incisions. Nevertheless, it could not be supposed that the practitioner was mistaken, in believing that he felt a very tense double fold projecting into the vagina. The assistant had also examined the vagina before the incision was made, and felt equally convinced, to his astonishment, that such was the case. It was now, however, evident that the phenomenon was a temporary one, and that for its explanation it was necessary to have recourse to the hypothesis of muscular contraction. But where was the portion of muscle that was contracted? It was scarcely possible to conceive that it was a part of the muscular fibres of the vagina, as in that case the constriction would have been circular, and not from before backwards. Outside the vagina, there is no muscle as yet described that could produce constriction.

Shortly afterwards, another case came under observation, somewhat similar in its character, and which helped to explain somewhat the remarkable features of the previous one. A woman, a multipara, with old ruptured perinæum, complained that at times the act of intercourse was not only painful but impossible, from some constriction a short distance up the passage, although the vagina was, in general, sufficiently capacious. An examination showed at first nothing abnormal; she was desired to squeeze the exploring finger, if possible, and was able to do so with considerable force, relaxing or contracting the vaginal wall at will. On pushing the inquiry still further, it was found that there was a sensitive part a short distance inside the orifice of the vagina, and at the cervix. The slightest touch of these parts produced an effect similar to that called into action by the will.

Gosselin, under the name of Vaginismus superior, in his *Leçons cliniques*, published last year, speaks of a hyperæsthesia of the vaginal *culs-de-sac* without contraction of any kind. In acute vaginitis, from the painful spasmodic contractions of the vagina, a small body is, in some cases, incapable of being passed. As this condition has been denied by some authorities, amongst whom is Guéneau de Mussy, the writer made some careful dissections to see what were the anatomical relations of the muscles surrounding the vagina.

The vagina crosses the superior perineal aponeurosis very obliquely, from below upwards and from before backwards. On measurement of the length of the vaginal walls below this plane, the posterior is about double the length of the anterior. The disposition of the muscular fasciculi is very peculiar in the

perineal region. The vagina is divided by the superior perineal fascia into two parts, an inferior and a superior. The inferior or perineal portion is rich in muscular fasciculi; the upper part contains but few striated or voluntary fibres. On the lower half of the vagina the muscular fibres, for the extent of about seven centimetres, pass both from before and backwards obliquely towards the rectum, but more especially in the antero-posterior direction. At the point of junction of the posterior surface of the vagina with the anterior wall of the rectum, there is a small triangular space, with its base posteriorly. It is free of any muscular fasciculi, both behind and at the lateral surface of the vagina. The first fasciculi, which are inserted in the anterior surface of the obturator fascia, and in the centre of the aponeurosis, are more considerable than are generally described in anatomical works. They form, as it were, a trapezoid, nearly triangular, the fibres being spread out fan-shaped over the sides of the rectum, and encompassing the vagina to about the height of four or four and a half centimetres on its posterior margin. The inferior fasciculi do not deserve the name of elevators of the anus, for they really serve to constrict the vaginal orifice, as they are directed obliquely from above downwards, or from before backwards; but it is not so with the superior, which are oblique and represent a constrictor muscle, as described by Cruveilhier. There is another bundle of muscular fibres arising slightly more externally and more posteriorly, of triangular formation. They arise from the inferior surface of the superior aponeurosis, a little below the line of junction of the fascia with the vagina. They strengthen the vaginal and rectal walls as they pass downwards, spreading out in the form of an elongated fan, whose base is about two centimetres. These fasciculi are exceedingly strong, and are composed of well-marked striated fibres, which was verified by M. Damaschino under the microscope. A portion of these fibres lose themselves on the surface of the rectum: others seem to be inserted more distantly.

This curious disposition of the fibres has been never previously described. A contraction of these powerful fasciculi would narrow laterally the middle portion of the vagina, which was the case in the two above-mentioned patients. Their presence explains vaginismus, and their tonic contraction, the narrowing of the vagina in virgins, and in some women up to parturition; they also form the corrugated surface of the vagina.—*London Med. Record*, Oct. 14, 1874.

—

On Bloodless Extirpation of Tumours of the Vulva.

M. Verneuil (*Gazette Hebdomadaire de Médecine et de Chirurgie*, June 5, 1874) relates the following six cases:—

Case 1. An epithelioma of the left labium majus and corresponding vaginal wall was treated by the écraseur, the chain being applied first by aid of a curved trocar and canula plunged under the growth. The chain had to be applied in four different directions, and the operation, though successful and bloodless, occupied forty-five minutes. Cicatrization was complete in a few weeks. Eighteen months afterwards there was no sign of return; and an enlarged inguinal gland had disappeared.

Case 2. An epithelioma, occupying nearly the whole length of the left labium, was removed in a few minutes by a double-chained écraseur, invented by M. Verneuil.

Case 3 was one of very large epithelioma of the superior commissure of the vulva, implicating the mons Veneris, both labia, and the region of the clitoris. A groove was first marked out round the tumour with the galvanic-cautery knife, and then the operation was completed by two écraseurs, worked simultaneously. The operation was successful, but a return of the disease carried off the patient in seven months. So completely was M. Verneuil satisfied with the galvanic knife here, that in the three other cases he employed it alone.

Case 4 was one of epithelioma of the left labium majus. The growth was drawn forward by the left hand, while a groove was traced round it with the galvanic-cautery knife, and then the base was separated. The knife (wire) was kept at a dull-red heat, and the operation only occupied four or five minutes—

a period sufficiently long to complete it without loss of blood or use of ligatures. The patient did well at first, but eventually died from extensive gangrenous erysipelas.

Case 5. In this case, one of enormous elephantiasis of the labia and mons Veneris, in a girl, aged twenty, a groove was again traced round the growth with the galvano-cautery; but as it had been used for the previous case, the fluid in the battery became exhausted, and M. Verneuil tried to complete the operation with the écraseur. He found, however, the skin so hard and the progress so slow, that he was afraid of breaking both chain and rack, and had the battery refilled, and finished with the galvano-cautery. To fix the chain of the écraseur, it was necessary to cut a little with scissors, and the free hemorrhage showed what might have been expected if the whole had been a cutting operation. The time occupied was forty-five minutes. He makes the following remarks on this case: 1. It is quite possible to follow easily with the eye what the galvano-cautery knife is cutting. Here he was even able to work more slowly when dividing small vessels. He even thinks it easier than when the parts have acquired a general red hue from sponging during a cutting operation. 2. Vessels divided by the cautery can still be ligatured, and if over a certain size require to be. 3. He alludes to the hemorrhage when the scissors were used a little; also 4. To the hardness of the growth, and the danger of breaking the écraseur. 5. The bath of the battery can be refilled in a few minutes, if the whole be first plunged into a pail of cold water to cool it. The edges of the wound were partly drawn together by silver sutures, and a dressing of wool dipped in alcohol and carbolic acid used. The operation was done on April 1 (the same day as Case 4), and the patient was quite well on May 18, never having had a bad symptom.

Case 6 was one of erectile venous tumour on the labium of a girl aged six. As it was difficult to surround the growth with the cutting loop of the cautery, M. Verneuil used the knife (cautery) and made a regular dissection, the so-called knife being a fine wire of platinum, heated to a dull-red. Two or three minutes completed the operation. A simple water-dressing was used, and the patient had a narrow escape from a very severe attack of erysipelas, with abscesses, etc., but ultimately recovered, merely a small linear cicatrix remaining, and the labium being natural in shape.

In some concluding remarks, M. Verneuil points out that there is no greater immunity from erysipelas, pyæmia, and like diseases, after these bloodless operations than when the knife is used. An epidemic of erysipelas was raging at the time when the last three cases were operated on; but he cannot admit contagion in the case of the little girl, who was a private patient, and whose wound he did not touch, the mother dressing it.

[M. Verneuil acknowledges that the discharge in the last case was putrid, and it is to be noted that of the three the one dressed with an antiseptic dressing escaped the disease. With regard to the other cases, they are very interesting and instructive, and amply support M. Verneuil's advocacy of the galvano-cautery. Few will be disposed to differ from him who have tried it in like cases.

In the cases the reporter has seen, however, he cannot say it was quite so easy to follow the wire and see what it was cutting as M. Verneuil has found it.—*Rep.*]—*London Med. Record*, Sept. 23, 1874.

Medical Jurisprudence and Toxicology.

On a New Method of treating Dangerous Symptoms presented during the Administration of Chloroform.

Dr. Jacob Heiberg, of Christiania (*Berliner Klinische Wochenschrift*, No. 36, 1874), describes certain manipulations for the relief and removal of disquieting symptoms often presented during the administration of chloroform.

These consist especially in noisy and retarded respiration, congestion or pallor of the face, and a small pulse. This condition, frequently met with in hospital practice, is usually treated by forcible separation of the jaws, and by dragging the tongue forwards with large forceps or sharp hooks. To these proceedings the author raises the objections that they interfere with the course of the operation, and distract the attention of the surgeon; that the tongue is often wounded by broken or sharp teeth; and, thirdly, that the quantity of chloroform used is often necessarily increased, and the subsequent ill effects of the narcosis rendered more intense. The manipulative proceeding, recommended by the author, consists in depressing the lower jaw *in toto*. When the respiration becomes noisy and disturbed, and in all cases where hitherto the teeth have been separated and the tongue pulled forwards, Dr. Heiberg would depress the jaw in the following manner. The chloroformist, standing behind the recumbent patient, places both thumbs on the symphysis of the lower jaw, passes the second segment of the flexed index finger behind the posterior margin of the ascending ramus of the lower jaw on each side so as thus to hold fast the whole bone between both hands, and then with some force drags the jaw directly forwards. The whole jaw may thus be made to glide forwards, so that the lower dental arch stands in front of the upper arch. This proceeding, which may be carried out with special facility in children, is at once followed by deep and perfect respiration. So long as the jaw remains dislocated, so to speak, respiration is unimpeded and quiet, and just the same result is obtained as from traction on the tongue. Dr. Heiberg states that the anatomical reason for this favourable result is not quite clear to him, but he thinks it probable that the epiglottis lying over the rima glottidis may be thus elevated. The following are supposed to be the chief advantages of Dr. Heiberg's proceeding: 1. The operator can do his own work with less disturbance, and the operation can be performed quietly, and with more safety. 2. Lesions of the teeth and tongue are thus avoided. 3. Less chloroform is used, the after-effects of the narcosis and the dangers of chloroformization being thus lessened.—*London Medical Record*, Oct. 21, 1874.

—

On Acute Ergot-Poisoning.

Dr. HENSCHEL reports a case in the *New York Medical Record* for September 1, 1874, where thirty minims of Squibb's fluid extract of ergot were given by mistake to an infant. Soon afterwards, there were severe abdominal pains, recurring every fifteen minutes and lasting hardly sixty seconds. There were slight tetanic contractions of muscles of face and extremities. Diarrhœa set in four hours after administration, and continued fourteen days. He believes that this case proves that it is the uterine contractions, and not the ergot, that destroys the fœtus during labour.—*London Med. Record*, Sept. 30, 1874.

—

Lead as a Constituent of Enamel the Cause of Chronic Poisoning.

The patient at first was suspected to have typhlitis, but after four weeks had elapsed a slate-coloured band made its appearance on the gums, and bladder-tenesmus became apparent. Upon this appearance a diagnosis of lead poisoning was arrived at. Soon after this the sister of the patient was similarly attacked.

The source of the lead poisoning was shortly afterwards detected. The jar used as a receptacle for vinegar was found to be much corroded, and nearly all the enamel was removed by the vinegar. The vinegar possessed a disagreeable sweetish taste. One "schoppen" was placed in the jar for ten hours, when, on examination, 0.09 grm. of metallic lead was found. The jar, when full of vinegar, must have contained, after standing ten hours, 1.8 grm., and after standing one week must have contained 30.24 grms. of lead in solution. About one jar of vinegar was consumed per day, which was quite sufficient to produce lead poisoning in the family.—*Medical Record*, Oct. 15, 1874.

The Poisonous Nature of Red Wall Papers.

The dangers to be feared from wall-papers, stuffs, laces, and flowers, dyed green by the agency of arsenite of copper, have long been patent to the world. The particles of arsenic which become detached from articles so coloured have given rise to undoubted cases of poisoning, as well as to much unaccountable ill health. This danger is particularly great in ball-rooms, where the particles detached from the dresses and flowers worn by the ladies is in constant agitation in a condensed and heated atmosphere. To these dangers appertaining to articles dyed green must now be added, according to an article in the *Gazette des Hôpitaux*, a fresh series, which have been traced to wall-papers and materials dyed red with coralline dye. It was believed for some time, some years since, that this material, which was used to dye stockings, socks, and other woollen goods, a magnificent red, was poisonous. A young man who wore red socks, having been attacked by a very acute and painful vesicular eruption on both feet, M. Tardieu attributed this affection to the red colour of the coralline dye. The substance in question having been separated by M. Roussin, the chemist, and injected under the skin of a dog, a rabbit, and a frog, which died from its effects, it was concluded to be a violent poison, and subsequently fell out of use as a dyeing agent. Contradictions of this statement, however, were soon forthcoming; M. Landrin, a veterinary surgeon, asserted that he had administered coralline to dogs and cats without observing any subsequent ill effect. He had had positive proof of the absorption of the coralline and of its purity, since he had been able to collect it in the lungs of the animals, and to dye silk with it. Dr. Guyot confirmed these experiments, and came to the conclusion that coralline was not poisonous, even in large doses, and that it may be safely used in dyeing, *provided that it be not mixed with poisonous substances.*

In presence of these contradictions between men of equal education and veracity, doubt was permissible, and things remained in this state. M. Bouchardat had often had an idea that signs of poisoning by local applications of Scheele's green or arsenite of copper were present in some cases from the nature of the symptoms recorded; but this was an *à priori* explanation which was far from convincing. The question was still environed by mystery, when it was cleared up by a most singular incident. Dr. Bijon, a physician of Quimperlé, had an apartment hung with *feutre Pavy*, a wall-paper with a red pattern on a hazel-brown (*noisette*) ground. Whenever he inhabited this room, he was annoyed by prickings of the eyelids, with itching and burning sensations; he was even attacked by purulent conjunctivitis after having slept for several nights in this room. He had the paper analyzed, and, from a piece of ten square *centimètres* (0.12 square yard), MM. Mayer and Lebaigue obtained, with Marsh's apparatus, enough arsenical patches to cover a saucer. They were also able to extract from a larger quantity of this paper enough coralline to submit it to reagents, to dye silk and wool with it, and to obtain sufficient arsenical patches to enable them to affirm that the red substance employed to colour the paper was undoubtedly coralline, and that, in its use as a dye for paper, it was an arsenical substance, as M. Bouchardat had foreseen; though M. Roussin had not been able to recognize it as such. M. Mayer could not obtain any patches of arsenic by submitting the brown portions of the paper to the action of Marsh's apparatus; and therefore came to the decision that the arsenic was only mixed with the red colour of the paper, that is, with the coralline dye.

An apparent contradiction is thus solved. It results that pure coralline is not poisonous, and may be employed as a dye; but, in materials as well as in wall-papers, an arsenical mordant is often used to fix it. This mordant, then, acts as a poison, whether acting topically on the skin, where it is directly deposited, through the medium of red shirts, drawers, and stockings, or by the dust and vapours which disengage themselves from the papers or stuffs dyed with it.—*British Medical Journal*, Oct. 10, 1874.

CONTENTS.

Anatomy and Physiology.

The Physiology of the Kidney. By M. Charcot 241
On Recurrent Sensibility. By MM. Arloing and Tripier 242

Materia Medica and Therapeutics.

On the Therapeutic Properties of Bromide of Camphor. By Dr. Bourneville . . 243
On the Action of Strychnia. By F. A. Falck 244
Note on the Nitrite of Amyl. By Dr. J. Crichton Browne 246
On the Antiseptic Properties of Salicylic Acid. By Professors Kolbe and Thiersch 246

Medicine.

On the Hypodermic Use of Atropia in Muscular Rigidities, Rheumatic, and Myalgic. By Dr. J. C. Wilson 248
On Auditory Vertigo (Ménière's Disease). By Prof Charcot 248
On Certain hitherto Unrecognized Movements of the Extremities in Hemiplegics. By M. Bernhardt and Dr. Westphal . 251
Reflex movements of the Sound Hand caused by Slight Irritation of the Skin of the Paralyzed Hand. By Dr. Putnam . 253
On the Curative Treatment of Insanity by Chlorohydrate of Morphia. By Dr. Voisin 253
On Syphilitic Meningitis and Syphilitic Cerebral Disease. By Dr Bruberger . 254
On Ipecacuanha Spray in Winter Cough and Bronchitic Asthma. By Dr. Sydney Ringer and Mr. William Murrell . . 255
On the Use of Carbolic Acid in Cheesy Pneumonia. By Prof. Tommasi . . . 256
On the Symptoms of Tuberculization in Children, and their Semeiological Value. By Dr. J. Grangé 257
On Acute Phlegmonous Periostitis with Ulcerative Endocarditis. By M. Hirtz . 257
On Hepatic Syphilis in the Adult. By M. Lacombe 258
Pseudo-Membranous Enteritis. By M. Wannebroucq 258

Surgery.

On the Treatment of Wounds. By Dr. G. M. Humphry 259
On Herpes Corneæ. By Dr. Pflüger . . 260
On Serous Cysts of the Iris. By Drs. Hosch and Sattler 260
On Pulsation of the Retinal Arteries in Aortic Disease. By Dr. Grandclement . 260
On a New method of Operation for Entropion and Trichiasis of the Upper Eyelid. By Dr. Warlomont 261
Removal of Plaster of Paris from the External Auditory Canal. By Mr. Dalby . 262
On Salivary Fistula. By Dr. Prompt . 263
On Gastrotomy for Internal Strangulation. By Prof. Berti 263
Case of Perityphlitis; Operation on the Eighth Day; Recovery. By Dr. Charles Kelsey 263
On Hypospadias. By Dr. S. Duplay . . 264
On Obstruction of the Left Ejaculatory Duct by Concretions from the Vesicula Seminalis (Spermatic Colic). By M. Réliquet 265
On Urethro-rectal Fistula following an Abscess of the Prostate. By M. Schwarz . 266
On Tuberculous Ulceration of the Anus and of the left Buttock in a patient suffering from Pulmonary Phthisis and Tuberculous Ulceration of the Fauces. By M. Martineau 267
On Subcutaneous Fracture of Exostosis of the Femur. By Dr. Chiene and Mr. Maunder 268
On Three Remarkable Cases of Dislocation. By M. D. Mollière 269
Dislocation of the Head of the Femur into the Great Ischiatic Notch; Fracture of Neck following attempted Reduction at the end of nine weeks. By Dr. Dawson . 270
A Rare Form of a Congenital Cystic Fibroma Molluscum of the Elbow; Removal by Operation; Successful Result. By Dr. Charles B. Brigham 271
On the Treatment of Hygromata containing False Cartilages. By Prof. Volkmann . 272
Case of Spina Bifida (Dorsal) cured by Injection. By Dr. James Morton . . 272
Traumatic Facial Neuralgia; Excision of a Portion of the Inferior Dental Nerve and of the Infra-orbital Nerve; Complete Relief. By Dr. Charles B. Brigham . . 273
Neuralgia of the Lower Jaw and Tongue treated by Excision of the Nerve. By Dr. Theo. A. McGraw 275

Midwifery and Gynæcology.

On a Case of Twins at the Eighth Month, with a Peculiar Ring-shaped Low Situation of the Placenta, without Hemorrhage By Prof. Alois Valenta . . 275
On Bifid Vagina as a Cause of Impediment to Delivery. By Dr. Valenta . . . 276
On Prolapse of the Umbilical Cord. By Dr. Geo. Engelmann 276
On Bleeding to Death of the Fœtus during Parturition By Dr. Valenta . . . 277
On a Case of Extrauterine Pregnancy. By Dr. Ludwig Bandl 277
Two Cases of Extrauterine Pregnancy followed by Recovery. By M. Gerpouillot de Menthin 279
On Multiple Disjunctions of the Bones of the Face in a Fœtus. By M. Ch. H. Petit 280
On Uterine Souffle after Confinement. By M. Bailly 280
On Occasional Arresting and Discutient Influence of Pregnancy over Pelvic Abdominal Tumours By Dr. Alexander Milne . 281
On Esthiomène, or Lupus of the Genitals. By Dr. Bernutz 282
On Constriction of the Vagina, Vaginismus Superior, and Vaginismus properly so called. By Dr. Victor Revillout . . 283
On Bloodless Extirpation of Tumours of the Vulva. By M. Verneuil 284

Medical Jurisprudence and Toxicology.

On a New Method of treating Dangerous Symptoms presented during the Administration of Chloroform. By Dr. Jacob Heiberg 285
On Acute Ergot-Poisoning. By Dr. Henschel 286
Lead as a Constituent of Enamel the Cause of Chronic Poisoning 286
The Poisonous Nature of Red Wall Papers 287

Published Monthly in conjunction with the MEDICAL NEWS AND LIBRARY *at* $3.50 *per annum in advance, free of postage.*

Also, furnished together with the AMERICAN JOURNAL OF THE MEDICAL SCIENCES *and the* MEDICAL NEWS AND LIBRARY *for* SIX DOLLARS *per annum in advance, the whole free of postage.*

HENRY C. LEA, Philadelphia.

INDEX.

Abortion, opium and chloral in, 42
Acne due to bromide of potassium, 165
Addison's disease, urine in, 202
Ailanthus glandulosa in dysentery, 160
Albuminuria as a symptom of the epileptic paroxysm, 108
Alcohol, action of, 11, 148
Alopecia, 163
Amblyopia, bromide of potassium in, 212
Amory, rupture of heart, 22
Amussat, electricity for cysts of neck, 80
Amyl, nitrite of, 246
Anæmia, effect of, on nutrition of heart, 114
Anæsthesia, obstetrical, 186
Anæsthetization during sleep, 46
Aneurism, arterio-venous of arch of aorta, connecting with left brachio-cephalic vein, 159
———, embolism as a cause of, 14, 65
——— of aorta treated by gallic acid and subsulphate of iron, 115
——— of dorsalis pedis, traumatic, 223
——— of radial artery, 84
———, popliteal, treated by ice, 35
Anstie, bromide of potassium, 5
———, poisoning by chloral, 191
Anus, tuberculous ulceration of, 267
Apomorphia, physiological action of, 102
Apoplexy, relation of renal, with cerebral hemorrhage, 117
Arloing, recurrent sensibility, 242
Arm, amputation of, with scapula, etc., 131
——— and scapula wrenched off, 35
Arnold, osteoma of frontal sinus, 216
Arsenious acid, physiological action of, 198
Asthma, ipecacuanha spray in, 255
Ataxic, spontaneous fractures and dislocations in the, 178
Atthill, ergot in fibroids of uterus, 189
Auditory canal, removal of plaster from, 262
Azéma, anomaly of anterior tibial artery, 223
———, aneurism of dorsalis pedis, 223

Bag of waters, premature rupture of, 228
Bailly, uterine souffle after confinement, 280
Bandl, extra-uterine pregnancy, 277
Bardinet, treatment of paraphimosis, 82
Baréty, pulmonary hemorrhage due to cerebral injury, 22
Barlow, granular kidney in a child, 161
Bartels, peripleuritis, 209
Bellamy, fracture from muscular action, 133
Bellini, iodide and bromide of mercury, 7
Bergeron, spontaneous fractures and dislocations in the ataxic, 178
Bernhardt, movements of extremities in hemiplegics, 251
Bernutz, lupus of the genitals, 282
Berti, gastrotomy for internal strangulation, 263
Bile in absorption of fats, 52
Bille, luxation of sacro-iliac synchondrosis, 234
Binz, bromide of potassium, 5
Blachez, puerperal tetanus, 233
Bladder and rectum, perforation of, 222
———, cysts on posterior wall of, 172
———, passage of hairs from, 222
Blake, action of salts of soda, 55
Blane, phosphate of lime and juice of meat in phthisis, 113
Blood cyst of hand, 174
——— in relapsing fever, 199
———, tests for, 95
Bock, sugar in œdematous fluid, 202
Boechat, structure of thyroid body, 2
Boehm, action of arsenious acid, 198
——— hydrocyanic acid, 103
Bone, effect of food on composition of, 11
Böttern, poisoning by colchicin in beer, 142
Bouchard, valerian in diabetes insipidus, 24
Bouchut, diphtheria, 60
Boudon, ipecac in bowel affections, 211
Bourdon, chloral in puerp. convulsions, 41
Bourguet, pseudarthrosis cured by irritant injections, 35
Bourneville, bromide of camphor, 103, 243
Brain and muscle in relation to epilepsy, 154
———, gunshot wound of, 27
Brandt, treatment of ulcers of os uteri, 93
Braus, pyometra and pyokolopos lateralis, 141
Breast, scirrhus of male, 81
Breasts, triple, 51
Brigham, nerve excision for neuralgia, 273
———, rare form of congenital cystic fibroma molluscum of elbow, 271
Brochin, trephining of mastoid process, 170
Browne, nitrite of amyl, 246
Bruberger, syphilitic cerebral disease, 254
Bryant, torsion in amputation, 25
Buccal nerve, section of, by mouth, 80
Bufalini, camphorated phenol, 8
Bull, perityphlitis, 68
Bullets, action of modern, 120
Bunion, resection as a remedy for, 225
Burns, amputation by galvanic cautery, 131
Buzzard, general paralysis cured by iodide of potassium, 205

Cæsarean section, 36, 37
———, imperfectly healed, cause of death, 88
Calcium bromide, 6
Callender, neuralgia treated by nerve-stretching, 74
Camphor, bromide of, 103, 243
Cancer, chloral in treatment of, 26
Carbolic acid in cheesy pneumonia, 256
———, subcutaneous injection of, 9
Carnus, electricity in vitreous opacities, 77
Caro, swallowing of a shawl-pin, 172
Carter, abscission of eyeball, 29
Casa, senile galactorrhœa, 43
Caselli, amputation of tongue, 29
———, ligature of deep femoral artery, 129
Cassells, alcohol in disease of middle ear, 78
Castellanos, punctured wound of kidney, 218
Cataract, senile, opening of capsule before corneal incision in operation for, 122
Cerebral disease, syphilitic, 254

Chaboud, arterio-venous aneurism of aorta, 159
Charcot, diagnosis of hystero-epilepsy, 20
———, Ménière's disease, 203, 248
———, physiology of the kidney, 241
Chiari, quinia as an abortifacient and oxytocic, 58
Chiene, subcutaneous fracture of exostosis of femur, 268
Chloral, external application of, 9
———, poisoning by, 47, 191
Chloroform, influence of, on fœtus, 89
———, treatment of poisoning by inhalation of, 286
Cholera, quarantine in relation to, 236
Clarke, icthyosis linguæ, 170
———, pseudo-hypertrophic muscular paralysis, 107
Clavicle, removal of entire, 34
Clements, pruritus urethræ and vaginæ, 90
Cluness, anæsthetization during sleep, 46
Cobbold, tapeworm, 118
Coffee, poisoning by, 95
Colic, therapeutics of gall-stone, 181
Coigne, mucous membrane of larynx, 49
Colchicin, poisoning by, in beer, 142
Collins, accessory lobe of right lung, 146
Collodion, poisoning by blistering, 143
Convalescence, puerperal, 38
Convulsions, bromide of potassium in albuminuric, 71
———, from brain disease, 153
———, puerperal, chloral in, 41
Cornea, herpes of, 260
———, metallic deposits on, 169
Corpus callosum, absence of, 49
Coughing, physiology of, 99
Courrèges, alopecia, 163
Crocq, capillary puncture in glandular swelling, 75
——, parotiditis as a sequence of acute disease, 156
Croup, 109
———, cardiac complications in, 61
Crystalline, rupture of, 29
Curschmann, poisoning by coffee, 95
Cystitis, local treatment of, in women, 186
Cysts of neck, treatment of sero-sanguineous, by electricity, 80
Czerny, local osteomalacia, 180

Dalby, removal of plaster of Paris from external auditory canal, 262
Dale, liver mistaken for ovarian tumour, 94
D'Aquin, dengue, 105
Dargan, senile galactorrhœa, 44
Davidson, Madagascar ordeal bean, 191
Dawson, fracture of neck of femur following attempted reduction, 270
Death, apparent, 4
Dengue, 105
Dental nerve, resection of inferior, 226
Depaul, obstetrical anæsthesia, 186
De Renzi, rheumatic paralysis of larynx, 22
Desprès, amputation in continuity of first and fifth metatarsal bones, 175
Devalz, tracheocele, 216
Diabetes insipidus, valerian in, 24
Dickson, brain and muscle in relation to epilepsy, 154
———,tying umbilical cord, 42
Diphtheria, 60
———, cardiac complications in, 61
Dislocation, three remarkable cases of, 269
Dixon, poisoning by berries of mistletoe, 46
Dobrowolski on smoked glasses, 59
Dolbeau, congenital absence of vagina, 44
Doutrelepont, scirrhus of male breast, 81
Duplay, hypospadias, 264
Dysmenorrhœa, conditions which cause, 44
Dyspepsia, treatment of, 66

Ear, alcohol in disease of middle, 78
Edis, vascular growths of the urethra, 89
Eichhorst, hereditary transmission of progressive muscular atrophy, 17
Ejaculatory duct, obstruction of, 265
Emmet, treatment of uterine disease, 137
Emminghaus, epileptic sweat, 155
Engelmann, prolapse of umbilical cord, 276
Englisch, cysts on wall of bladder, 172
Enteritis, pseudo-membranous, 211, 258
Entropion, new operation for, 261
Epilepsy, brain and muscle relation to, 154
———--, diagnosis of hystero, from true, 20
———--, saturnine, 18
Ergot-poisoning, acute, 286
Erlenmeyer, poisoning by chloral, 47
Erysipelas, 27
———— of face, connection of inflammation of heart with, 158
Esthiomène, 282
Ether, use of, during labour, 37
Eucalyptus globulus in puerp. affections, 234
Exostosis, subcutaneous fracture of, 268
Eyeball, abscission of anterior portion of, 29

Face, multiple disjunctions of bones of, 280
Face-presentations, anomalous, 36
Falck, action of strychnia, 244
Fats, bile in absorption of, 52
Fehling, rupture of vagina, 136
Femoral artery, ligature of deep, 129
Femur, fracture of neck following reduction of dislocated, 270
Fergus, sewer traps, 47
Fergusson, cleft-palate, 30, 126
———, hare-lip, 124
Fibroid, expulsion of uterine, 94
Fibroma molluscum of elbow, rare form of congenital cystic, 271
Finch, peculiar laryngeal affection, 208
Finger, fracture of index, from muscular action, 133
Finlayson, lancing the gums, 64
Fistula, salivary, 263
———, urethro-rectal, 266
Fœtus, bleeding to death of, 277
———, malformed, 98
Foot, amputation of, in the continuity of first and fifth metatarsal bones, 175
Forceps, Madden's improved, 87
Ford, phosphorus in insanity, 62
Fournier, tertiary syphilis, 106
Fox, treatment of pityriasis rubra, 118
Fracture from muscular action, 133
Frantzel, inflammation of mediastinum, 110
Frey, temporary paralysis, 16
Fumagalli, rupture of crystalline, 29

Galactorrhœa, senile, 43
Galezowski, spontaneous myosis, 28

Gallasch, leucæmia in childhood, 13
Gall-stone colic, therapeutics of, 161
Galvanic cautery, amputation by, 131
Gastrotomy for internal strangulation, 263
Gehrung, rest in diseases of chest, 23
Genital tract, female, exudation near, 90
Geoffroy, perforation of bladder and rectum, 222
Gierke, respiratory centres, 52
Gimbert, bromide of potassium in albuminuric convulsions, 71
Glandular swelling, capillary puncture in, 75
Glans penis, angioma of, 220
Glasses, smoked, 59
Goitre, epidemic, 21
Goodell, death from use of sponge-tents, 139
———-, prevention and treatment of puerperal diseases, 183, 229
———-, puerperal convalescence, 38
———-, use of ether during labour, 38
Gordon, sarcoma of pleura, 65
Gosselin, benzoic acid for ammoniacal urine, 70
———-, rupture of tendon of triceps cruralis, 133
Gowers, convulsions from organic brain disease, 153
Grandclement, pulsation of retinal arteries in aortic disease, 260
Grangé, tuberculization in children, 257
Gray, carbolized ligatures, 25
Greve, on the act of vomiting, 147
Guéniot, anomaly of œsophagus, 50
Gums, lancing of, 64
Guttmann, bromide of calcium, 6

Häidenhain, anatomy of the kidney, 97
Hare-lip, 124
Hasse, transfusion of lamb's blood, 11
Haward, blood cyst of hand, 174
Hayden, contraction of both auriculo-ventricular orifices of heart, 158
Heart, connection of inflammation of, with erysipelas of face, 158
———, contraction of both auriculo-ventricular orifices of, 158
———-, rupture of, 22
———-, tolerance of, to wounds, 126
Hecht, placenta prævia with fibroid of uterus, 39
Heiberg, poisoning by chloroform, 286
Hemiplegics, movements of extremities in, 251, 253
Hemorrhage, pulmonary, due to injury of encephalon, 22
———————, solution of chloride of iron in post-partum, 39
Henschel, acute ergot-poisoning, 286
Herkel, metallic deposits on cornea, 168
Hernia, retro-peritoneal, 218
Hicks, treatment of cystitis in women, 186
Hip-joint, exsection of, 175
———————, use of ligamentum teres of, 193
Hirtz, phlegmonous periostitis, with ulcerative endocarditis, 257
Hodge, death from use of sponge-tents, 139
———, extra-uterine pregnancy, 86
Holman, chloride of iron in post-partum hemorrhage, 39
Hooping-cough, treatment of, 209
Hosch, serous cysts of iris, 260
Hovey, rabies mephitica, 13
Hugenberg, premature rupture of bag of waters, 228
Humphry, treatment of wounds, 259
Huppert, albuminuria and epilepsy, 108
Hüter, subcutaneous injection of carbolic acid, 9
Huttenbrenner, tetanus neonatorum treated by chloral, 166
Hydatids, uterine, 134
Hydrargyrum oleinicum, 58
Hydrocele, total transparency in, 221
Hydrocyanic acid, action of, 103
———————————, and atropia, antagonism of, 103
Hygromata, containing false cartilages, treatment of, 272
Hyperidrosis, hereditary local, 163
——————— of feet, 163
Hypospadias, 264

Ichthyosis linguæ, 170
Iliac artery, ligature of, for fungus hæmatodes of sacro-iliac synchondrosis, 224
Infants, alteration in weight of newborn, 45
Insanity, chloro-hydrate of morphia in, 253
———-, phosphorus in, 62
Intussusception, statistics of, 69
Iodine, mode of action of, 53, 99
Iodoform as a topical remedy, 8
Ipecac enemata in bowel affections, 211
——— spray in bronchitic asthma, 255
Iris, cystoid degeneration of, 169
——, serous cysts of, 260
Iron, perchloride of, properties of, 104

Jaccoud, connection of inflammation of heart with erysipelas of face, 158
Jacobi, sarcoma of kidney in an infant, 166
Jameson, double spleen and kidneys, 3
Jaw, congenital malformations of lower, 193
Jessop, amputation of upper extremity, 131
Jürgensen, light forms of typhoid fever, 59
Juventin, urea in vomit, 5

Kaczorowski, treatment of erysipelas, 27
Katholitzky, arm and scapula wrenched off, 35
Kaufmann, expulsion of uterine fibroid, 54
Kelsey, perityphlitis, 263
Kezmarozky, alteration in weight of newborn infants, 45
Kidney, anatomy of, 97
———-, granular contracted, in a child, 161
———-, physiology of, 241
———-, punctured wound of, 218
———-, sarcoma of, in an infant, 166
Kidneys, four, 3
Kilpatrick, triple breasts, 51
Klein, anatomy of serous membranes, 1
Knee-joint, relation of extensor tendons to, 2
Koch, changes produced in lung-tissue by irritants, 157
Kohts, physiology of coughing, 99
Kolbe, properties of salicylic acid, 246
Krishaber, galvano-cautery in tracheotomy, 171
Kroenlein, treatment of wounds, 73
Kuester, action of modern bullets, 120

Laborde, action of propylamine, 150

Lacombe, hepatic syphilis in the adult, 258
Lagrave, cardiac complications in croup and diphtheria, 61
Lamm, absence of uterus, 51
Lancereaux, paralysis and cutaneous disease, 153
Langer, dislocation of thumb, 179
Laryngeal affection in children, 208
Larynx, mucous membrane of, 49
———-, rheumatic paralysis of, 22
Latour, morbid sweating of feet, 163
Lead enamel, poisoning by, 286
Le Fort, removal of clavicle, 34
Leg, local osteomalacia of, 180
——, treatment of rickety deformities of, 182
Leidesdorf, saturnine epilepsy, 18
Lenhossék, bone in penis, 50
Leube, treatment of dyspepsia, 66
Leucæmia, rare kind of, in childhood, 13
Lichtenstein, statistics of intussusception, 69
Ligamentum teres, use of, 193
Ligatures, carbolized, 25, 228
Linhart, resection of superior maxilla, 79
Liver mistaken for ovarian tumour, 94
——-, syphilitic, in the adult, 258
Lorinser, relation of extensor tendons to knee-joint, 2
Löwinson, inunction in typhoid fever, 23
Lund, carbolized resin-cloth, 105
Lung, accessory lobe of right, 146
——- affections, during pregnancy, 208
——- tissue, changes produced by mechanical and chemical irritants in, 157
——-, unilateral induration of, 111
Lupus erythematosus, treatment of, 162
——- of conjunctiva, primary, 168
——- of the genitals, 282
Lymphangitis in puerperal pathology, 135
Lymph-scrotum, 33

Maclaren, malformed fœtus, 98
Madagascar ordeal bean, 191
Madden, chloral in puerp. convulsions, 41
———-, improved forceps, 87
———-, molar pregnancy and uterine hydatids, 134
Malinverni, absence of corpus callosum, 49
Manson, lymph-scrotum, 33
Marsh, rickety deformities of leg, 182
Martin, adherent ovarian cyst cured by injection of carbolic acid, 235
Martineau, chloral and opium in abortion, 42
———————— externally, 9
———————, ulceration of anus, 267
Martini, extirpation of inverted uterus, 45
———-, hydrargyrum oleinicum, 58
Martins, luxation of tibialis posticus, 36
Mascarel, treatment of pertussis, 209
Mastitis, phytolacca decandra in, 42
Mastoid process, trephining of, 170
Maxilla, resection of superior, 79
McGraw, excision of inferior dental nerve for neuralgia, 275
Mediastinum, acute purulent inflammation of, in typhoid fever, 110
Méhu, liquids effused into the pleura, 210
Melancholia, phosphorus in, 206
Ménière's disease, 203, 248
Menthin, extra-uterine pregnancy, 279
Menzel, partial fracture of tibia, 224
Mercury, bromide and iodide of, 7
————, influence of, on liver, 55
Meyer, articular neurosis, 227
———-, pathology of general paralysis, 15
Michaud, epidemic goitre, 21
Mihalkovics, anatomy of testicle, 145
Milne, discutient influence of pregnancy over abdominal tumours, 281
Mistletoe, poisoning by berries of, 46
Mollière, three cases of dislocation, 269
Moorhof, intra-buccal resection of inferior dental nerve, 226
Morphia chlorohydrate in insanity, 253
———— solutions for hypodermic use, 12
Morton, spina bifida cured by injection, 272
Mucous membrane of uterus, 146
Murchison, influence of mercury on liver, 55
Muscle, death of, 4
Muscular atrophy, hereditary transmission of progressive, 17
———— rigidities, atropia in, 248
Myosis, spontaneous, 28

Neck, sero-sanguineous cysts of, 80
Nerve, excision of, for neuralgia, 273, 275
Neumann, action of bromide of potassium on skin, 6
————-, deligating hard sores by elastic threads, 26
Neuralgia treated by nerve-stretching, 74
Neurosis, articular, 227
Nicaise, total transparency in hydrocele, 221
Nothnagel, unilateral induration and contraction of the lung, 111
Nussbaum, new method of curing ulcer, 167

Œsophagus, anomaly of, 50
Ogston, malformations of lower jaw, 193
Ollier, rhinoplasty by a double flap, 213
Ollivier, hereditary local hyperidrosis, 163
———-., relation of renal apoplexy with cerebral hemorrhage, 117
Olshausen, incision of cervix uteri, 139
Orbit, intra-uterine fibroma of, 190
Osmic acid, poisoning by, 235
Osteomalacia, local, 180
Osteoma of frontal sinus, 216
Osterloh, eucalyptus globulus in puerperal affections, 234
Os uteri, treatment of ulceration of, 93
Ovarian cyst, adherent, cured by injection of carbolic acid, 235

Palate, cleft, 30, 126
Panas, section of buccal nerve by mouth, 80
Papers, poisonous red wall, 286
Papya juice, solvent action of, 57
Paralysis and cutaneous disease, 153
———— caused by Esmarch's method, 76
————, cured by iodide of potassium, 205
————, pathology of general, 15
————, pseudo-hypertroph. muscular, 107
————, temporary, 16
Paraphimosis, new method of reducing, 81
Paresi, perchloride of iron, 104
Parkes, action of alcohol, 148
Parona, angioma of glans penis, 220
———-, chloral in treatment of varix, 33
Parotiditis following acute disease, 156
Parry, extra-uterine pregnancy, 85
Paul, chloral in cancer, 26

Peltier, trimethylamine in acute rheumatism, 201
Penis, amputation of, at pubes, 82
——————— for epithelioma, 174
——-, bone in, 50
——-, congenital curvature of, 127
Periostitis, phlegmonous, with ulcerative endocarditis, 257
Peripleuritis, 209
Peritoneum, anatomy of, 219
Perityphlitis, 68, 263
Perl, influence of anæmia on heart, 114
Perls, intrauterine fibroma of orbit, 190
Petit, disjunction of bones of face, 280
Petiteau, iodoform as a topical remedy, 8
Pflüger, herpes corneæ, 260
Phenol, camphorated, 8
Phosphorus, administration of free, 151
———————, in insanity, 62
——————— in melancholia, 206
Phthisis, contagiousness of, 113
———-, laryngeal, 207
———-, lime phosphate and raw meat in, 113
Phytolacca decandra in mastitis, 42
Pichler, therapeutics of gall-stone colic, 161
Pin, swallowing of a shawl, 172
Pityriasis rubra, treatment of, 118
Placenta, peculiar ring-shaped, low situation of, without hemorrhage, 275
——————— prævia with fibroid of uterus, 39
Pleura, on the liquid effused into, 211
———, sarcoma of, 65
Pneumonia, carbolic acid in cheesy, 256
Ponfick, blood in relapsing fever, 199
———-, embolus causing aneurism, 14, 65
Porta, radical cure of varix by chloral, 131
Potassium bromide. action of, 6
Pregnancy, lung affections during, 208
———————, extra-uterine, 86, 277, 297
———————, molar, 134
Prompt, salivary fistula, 263
Propylamine, action of, 150
Pruritus urethræ and vaginæ, 90
Pseudarthrosis irritant injections in, 35
Puerperal diseases, prevention and treatment of, at Preston Retreat, 183, 229
Putnam, reflex movements of non-paralyzed hand, 253
Pyometra and Pyokolopos lateralis, 141

Quaglino, potassium bromide in amblyopia, 212
Quain, aneurism of radial artery, 84
Quehl, action of apomorphia, 102
Quinia as an abortifacient and oxytocic, 58
——— in infantile diseases, 152

Rabies mephitica, 13
Rapmund, quinia in infantile diseases, 152
Ravicini, quinia in typhoid fever, 24
Raymond, poisoning by osmic acid, 235
Raynaud, pseudo-membranous enteritis, 211
Rectum, cancer of, linear rectotomy in, 129
———-, extirpation of lower end of, 83
Réliquet, obstruction of ejaculatory duct, 265
Resin-cloth, carbolized, 105
Respiratory centre, 52
———————- organs, peculiar affection of, 208
Rest in treatment of diseases of chest, 22, 112
Retinal arteries, pulsation of, in aortic disease, 260
Revillout, vaginismus, 283
Rheumatism, trimethylamine in acute, 201
Rhinoplasty by a double flap, 213
Richet, tolerance of heart to wounds, 126
Rickety deformities of leg, treatment of, 182
Riegel, action of alcohol on temperature, 11
Rigidities, atropia in muscular, 248
Ringer, ipecacuanha spray in asthma, 255
———, therapeutic value of sulphides, 195
Robert, ailanthus glandulosa as a remedy for dysentery, 160
Roberts, rest in chest affections, 112
Robertson, repositio ciliorum for trichiasis, 170
Roger, croup, 109
Rokitansky, respiratory centre, 52
Rose, resection as a remedy for abduction of great toe and bunion, 225
Rosenstein, urine in Addison's disease, 202
Rosenthal, death of muscle and apparent death, 4
Ross, triple breasts, 51
Rota, Cæsarean section, 38
Roy, papaya juice, 57
Rugge, ergotine in varicose veins, 88

Sacro iliac synchondrosis, fungus hæmatodes of, 224
———————————————-, luxation of, 234
Salicylic acid, antiseptic properties of, 246
Saliva, saccharifying influence of infant's, 4
Sattler, primary lupus of conjunctiva, 168
———, serous cysts of the iris, 260
Savory, use of ligamentum teres, 193
Sayre, exsection of hip-joint, 175
Scapula and arm wrenched off, 35
Schiffer, saccharifying influence of infant's saliva, 4
Schlesinger, thermometry of the uterus, 85
Schröder, treatment of cancer of uterus, 189
Schwarz, urethro-rectal fistula following an abscess of prostate, 266
Schwerin, poisoning by blistering collodion, 143
Sebaceous tumours of scalp, 212
Sée, iodine, 53, 99
Sensibility, recurrent, 242
Serous membranes, anatomy of, 1
Sewell, passages of hair from bladder, 222
Sewer traps, 47
Skin disease, peculiar in children, 72
Smallpox, infection of, 14
Smith, death from sponge-tents, 139
———-, phytolacca decandra in mastitis, 42
———-, use of ether during labour, 37
Soda, action of salts of, 55
Sommerbrodt, laryngeal phthisis, 207
Sores, hard, elastic threads in, 26
Speir, aneurism of aorta treated by gallic acid and subsulphate of iron, 115
Spiegelberg, exudation in neighbourhood of female genital tract, 90
———————-. primary carcinoma in body of uterus, 93
Spina bifida cured by injection, 173, 272
Spleen, double, 3
———, tumours of, in primary syphilis, 116
Squarey, dysmenorrhœa, 44
Strychnia, on the action of, 244

Sulphides, therapeutic value of, 195
Sweat, epileptic, 155
Syphilis, tertiary, 106

Tapeworm, remarks on eighty cases of, 118
Tendon, luxation of tibialis posticus, 36
——— of triceps cruralis, rupture of, 133
Tendons, relation of extensor, to knee-joint, 2
Tents, death following use of sponge, 138
Testicle, anatomy of, 145
Testis, sarcoma of, 127
Tetanus neonatorum, chloral in, 166
———, puerperal, 223
Thiersch, properties of salicylic acid, 246
Thompson, use of free phosphorus, 151
Thumb, dislocation of, 179
Thyroid body, structure of, 2
Tibia, partial fracture of, in an adult, 224
Tibial artery, anomalous course of, 223
Tilt, lymphangitis in puerp. pathology, 135
Tinea tonsurans, treatment of, 120
Toe, resection for abduction of great, 225
Tommasi, carbolic acid in cheesy pneumonia, 256
Tongue, amputation of, in a child, 29
———, extirpation of, after ligature of lingual artery, 214
Torsion in amputation, 25
Tracheocele, 216
Tracheotomy, galvano-cautery in, 171
Transfusion of lamb's blood, 11
Traps, sewer, 47
Trichiasis, new operation for, 261
————, repositio ciliorum for, 170
Trimethylamine in acute rheumatism, 201
Tripier, recurrent sensibility, 242
Tuberculization in children, 257
Tumours, discutient influence of pregnancy over pelvic abdominal, 281
Twins at eighth month, 275
Typhoid fever, fatty inunction in, 23
————, hypodermics of quinia in, 24
————, slighter forms of, 59
Tyrrell, amputation of penis at pubes, 82
———, sarcoma testis, 129
———, sebaceous tumours of scalp, 212

Uffelman, peculiar infantile skin disease, 72
Ulceration, tuberculous, of buttock, 267
Ulcers, new method of curing, 167
Umbilical cord, new method of tying, 42
————, prolapse of, 276
Ungarelli, Cæsarean section, 36
Urea in vomit, 5
Urethra, vascular growths of, 89
Urine, benzoic acid for ammoniacal, 70
Uterine disease, treatment of, 137
——— souffle after confinement, 280
Uterus, absence of, 51
———, extirpation of inverted, 45
———, fibroids of, ergot in, 189
———, incision of cervix, 139
———, primary carcinoma of body of, 93
———, thermometry of, 85
———, treatment of cancer of, 189

Vachell, morphia for hypodermic use, 12
Vagina, bifid, impeding delivery, 276
———, congenital absence of, 44
Vagina, rupture of, 136
Vaginismus, 283
Valenta, bifid vagina as an impediment to delivery, 276
———, bleeding to death of fœtus, 277
———, twins with a ring-shaped low situation of placenta without hemorrhage, 275
Van Peyma, gunshot wound of brain, 27
Varicose veins, injection of ergotine for, 88
Varix of vena dorsalis penis treated by injection of chloral, 33
———, radical cure of, by chloral, 130
Veiel, skin affections caused by bromide of potassium, 165
———, treatment of lupus erythematosus, 162
Verneuil, bloodless extirpation of tumours of vulva, 284
————, extirpation of end of rectum, 83
————, linear rectotomy in cancer of rectum, 129
Vertigo, auditory, 203, 248
Vitreous, electricity in opacities of, 77
Voisin, curative treatment of insanity by chlorohydrate of morphia, 253
Volkmann, treatment of hygromata, 272
Vomiting, on the act of, 147
Vulva, bloodless removal of tumours of, 284

Waldeyer, anatomy of retroperitoneal fossa, 219
————, retroperitoneal hernia, 218
Wannebroucq, pseudo-membranous enteritis, 258
Warlomont, new operation for entropion and trichiasis, 261
Water, use of hot, in surgery, 134
Watson, amputation of penis, 174
———, on the opening of the capsule before making the corneal section in operation for senile cataract, 122
Watt, spina bifida cured by injection, 173
Weber, anomalous face-presentations, 36
———, communicability of phthisis, 113
Wecker, cystoid degeneration of iris, 169
Weichselbaum, extirpation of tongue after ligature of lingual artery, 214
Weil, tumours of spleen in primary syphilis, 116
Weir, congenital curvature of penis, 127
——, paralysis caused by Esmarch's bloodless method, 76
Weiske, effect of food on bones, 11
Wernich, course of lung affections during pregnancy, 208
Westphal, movements of extremities in hemiplegics, 251
Willard, death from use of sponge-tents, 138
Williams, bile in absorption of fats. 52
————, mucous membrane of uterus, 146
————, phosphorus in melancholia, 206
Willigk, imperfectly healed Cæsarean section, 88
Wilson, atropia in muscular rigidity, 248
———, death from use of sponge-tents, 139
Wood, tests for blood, 95
Wounds, treatment of, 73, 259

Zuelzer, infection of smallpox, 14
Zweifel, influence of inhalation of chloroform on fœtus, 89

SERIAL

P
Med
M
v.1

Monthly abstract of medical science

GERSTS